The VOLTA REVIEW

A MONTHLY DEVOTED to the PROBLEMS of DEAFNESS.

Volume 13 MAY, 1911 Number 2

SPEECH-TEACHING AT THE CHEFOO SCHOOL

The VOLTA BUREAU
WASHINGTON D·C·

TABLE OF CONTENTS

	PAGE
The Association and Bureau	71
Frontispiece. Applied Industrial Training	72
The Wisconsin School for the Deaf. By Warren Robinson, M. A. With Eighteen Illustrations	73
Speech-Teaching in the Wisconsin School. By Almira I. Hobart, B. S., Corresponding Editor	87
On Measurement of the Volume of Breathing. By Anders Hansen, Corresponding Editor	88
What Poetry Means to Me. By Edward B. Nitchie, B. A.	89
Equational Methods. By Barton Sensenig, M. S.	91
To the Friends of the Deaf. By Miss L. M. Bemis	95
The Woman Who Adapted Herself. By F. K. Noyes	96
The Use of the Bell Symbols in Writing Chinese. By Mrs. Annetta T. Mills	98
Reminiscences of a Retired Educator. By Richard Elliott, M. A., L.H.D. Illustrated. XV. Administration of the Margate School. XVI. The London School Board's Work	99
Statistics of Speech-Teaching in American Schools for the Deaf. By Frank W. Booth, General Secretary, A. A. P. T. S. D.	104
Positions for Teachers of the Deaf. Chicago Deaf-Schools' Examinations—Conference of Southern School Heads—Teachers' Information Bureau	117
How to Practise Lip-Reading. Conducted by Edward B. Nitchie, B. A. VI. Word Practise. VII. Sentence Practise	118
The Wright Auto-Inspection Laryngoscope. By John D. Wright, M. A. With Two Illustrations	120
An "English Volta Bureau" Established	121
The Industrial Department. Conducted by Warren Robinson, M. A. Carpentry in the Wisconsin School for the Deaf—The Question Box—The Himrod Engraving Company—The Utility of Education	122
Suggestions to Teachers. Suggestions Regarding Daily Program—A Geography Contest—How to Read the Heart of a Boy—Games—Words for Spelling and Defining—A Simple Agricultural Test—The Forty-five Combinations—A Language Device	124
The Deaf Child's Home-Training. Conducted by Mrs. J. Scott Anderson. Conspectus of the Subject—Gymnastics—Special Sense-Training	126
Contemporary Foreign Thought. Conducted by Anders Hansen. Pure Oral Worship	128
News and Comment. New Life Members—New Principal of Public School 47, Manhattan—Program of Department XVI, N. E. A.	130
The Universal Alphabetics. Conducted by M. Gardiner. Illustrated. Does the Sun Move?—King Solomon and the Bee—Basis of the Symbols	131
Notes. Fourteen Ways of Spelling "o—long," 88—No July and August Numbers, 121.	

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THE American Association to Promote the Teaching of Speech to the Deaf, a scientific and scholarly body, was incorporated under the laws of the State of New York in 1890 "for the purpose of promoting instruction in speech to all deaf children throughout America."

In December, 1908, the Association took over and is now continuing the work of **The Volta Bureau for the Increase and Diffusion of Knowledge Relating to the Deaf.**

The two institutions labor to keep alive in the deaf the most precious acquisition of the human race, the faculty of speech, to the end that no child in America shall grow up dumb because of deafness; to obtain equal opportunities, educational or otherwise, for the deaf; correctly to inform the public regarding this great class of our population, who number some 89,000 according to the last census; and to conduct research work into the general subject of deafness and the problems arising therefrom.

The **membership** of the Association includes representatives of every system of teaching speech to the deaf that is now extant, as well as aurists, psychologists, scholars, scientists, philanthropists, the deaf themselves, and all investigators into or thinkers upon the general subject of deafness and its phenomena.

The Association accomplishes its work, namely, the promotion of the teaching of speech to the deaf and the diffusion of cognate knowledge:

1. By **publications,** including monographs and ***The Volta Review,*** an illustrated monthly magazine of general and technical interest, all the receipts from which are devoted to the purposes of the magazine itself or to furthering the work of the Association.

2. By the maintenance of **the largest technical library** of its character in the world. The library is located at the Association's home, in the Volta Building, Washington, D. C., and is open to the free use of all members.

3. By **conventions,** at which all the leading specialists in problems relating to the deaf meet for an interchange of views and for the delivery of addresses, which are later published.

4. By the preparation of **exhibits** for the purpose of enlightening the public as to the character, the importance, and the progress of the work done by the Association.

5. By contributing toward the maintenance of **a normal class** of instruction at the Clarke School, Northampton, Mass., a sum which last year was in excess of the total revenue derived from membership dues in the Association.

6. By providing **a clearing house** of information through its executive offices in the Volta Building, at Volta Place and Thirty-fifth street, Washington, D. C. This correspondence department is under the supervision of Frank W. Booth, the general secretary of the Association.

7. By maintaining **a Teacher's Information Agency,** which is free to members. Last year the Information Agency received about 70 applications from teachers, and the number of inquiries for teachers was in excess of this supply.

8. By the preparation and circulation of **exhaustive statistics and information** relating to the deaf.

9. By such additional **research work** as the Association's resources will permit.

The **annual dues are $2** and the fee for a life membership is $50. There is **no entrance fee.**

All members of the Association are entitled to its magazine, ***The Volta Review,*** free of charge for the period of membership; to a reduced rate on its publications; to the free use of its library, and to all information collateral to the purposes of the Association which may be in the possession of its officers.

APPLIED INDUSTRIAL TRAINING

These girls, of the class of 1908 at the Delavan School, wear the graduation dresses and hats made by themselves

THE VOLTA REVIEW

Formerly THE ASSOCIATION REVIEW

A Monthly Specializing on Deafness and the Deaf

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THE WISCONSIN SCHOOL FOR THE DEAF[1]

A HISTORICAL VIEW OF THE DEVELOPMENT OF A SCHOOL WHICH HAS FOR ITS OBJECT THE MAKING OF WELL-ROUNDED, SELF-SUPPORTING MEN AND WOMEN—SPECIAL METHODS, DEPARTMENTS, AND DEVICES

BY WARREN ROBINSON, M. A.,

Instructor in the School; Editor of "The Volta Review's" Industrial Department

THE city of Delavan, Wis., where the Convention of American Instructors of the Deaf will hold its nineteenth meeting next summer, is located in a fertile prairie region in Walworth county, in the extreme southern part of Wisconsin, twelve miles from the Illinois State line. It is on a branch of the Chicago, Milwaukee & St. Paul Railroad, sixty-five miles from Milwaukee and ninety miles from Chicago. It is nine miles from the famous summer resort of Lake Geneva and three miles from Delavan Lake, where is held the annual meeting of the Delavan Lake Assembly, and where also some two thousand people from various sections of the country spend the best portion of their summers. It has a population of only about three thousand souls. Delavan is not only one of the most beautiful towns in the State, but is a commercial center of no mean importance.

On a hill just west of this town is Phœnix Green, the beautiful site of the Wisconsin School for the Deaf. In its primitive days, like the surrounding country, the spot which is now Phœnix Green was a wild. It was covered with oak and hazel brush, a covert for all sorts of wild game. At the base of the eastern slope was a sand-pit, now practically obliterated.

Later, when the first building was erected, in 1853 or 1854, the front yard was at one time an inclosed field of standing corn, and the institution cow had the freedom of the rest of the place. But gradually, under the care of officers and pupils, this uncouth appearance gave way to smoothly kept lawns, stately young evergreens, orchard trees, maples, and an occasional flower-bed. In the sixties, during the administration of Mr. Officer, the garden and the orchard flourished as never before or since.

Looking at the site of the Wisconsin School from another point of view, we find it in a locality of pure air and water, with always plenty of room for every form of invigorating exercise. The coasting-hill, the baseball, and later the football and croquet grounds and the

[1] In view of the fact that the Convention of American Instructors of the Deaf will hold its nineteenth summer meeting at the Wisconsin School for the Deaf, next July, there is at present especial interest in this school among educators of the deaf, and for the purpose of supplying those who attend the Convention with authoritative general data regarding the school as it is today, Mr. Robinson has been asked to prepare this article. The history of speech-teaching at the school is treated by Miss Almira I. Hobart in a subsequent paper.

lawn-tennis and basket-ball courts provide ample pastimes for the pupils. In addition it is possible at the proper seasons to enjoy skating, ice-boating, rowing, fishing, or hunting, all within a short distance of the school.

The site comprises thirty-seven acres, eleven of which were originally donated by Mr. F. K. Phœnix, the remainder having been subsequently acquired by purchases. It was very appropriately named Phœnix Green, in honor of the donor, by Mr. Lars M. Larsen, an alumnus of the school.

History of Deaf Education in Wisconsin

For the first attempt to educate the deaf in Wisconsin we must go back to 1843, ten years before the establishment of the institution at Delavan. It was made by Increase A. Lapham, LL. D. Dr. Lapham was born in Palmyra, N. Y., March, 1811. In 1836 he came to Wisconsin, settling in Milwaukee, then little more than a frontier town. He became eminent in science, and was the author of some forty-five published works on botany, geology, and meteorology and originated and organized the Weather Bureau of the United States.

Dr. Lapham's proposal for the establishment of a school for the deaf of Wisconsin was contained in a letter written by him to the Hon. Moses M. Strong, then president of the territorial council at Madison, with which he inclosed a draft of resolutions asking an appropriation of land by Congress for the purpose of establishing institutions for the instruction of the "deaf-and-dumb" and blind and an asylum for the insane within the territory of Wisconsin.[2] Action was at once taken on the receipt of the resolutions by the council, and Congress was petitioned accordingly, but there is no mention in the journals of that time that anything was done.

The next step in this direction, and one which was ultimately successful, took place in 1850, when Ebenezer Chesebro, whose deaf daughter Ariadna was being educated privately, conceived the idea of obtaining the establishment of a State school for the deaf, and to that end circulated a petition in Darien and adjacent towns, which was signed by one hundred citizens of Walworth county. Through the efforts of the assemblyman from the Delavan district, the matter was ably handled during the session of 1852, and a bill was passed and approved by Governor Leonard J. Farwell, April 19, 1852, incorporating "the Wisconsin Institute for the Education of the Deaf and Dumb," to be located "at or near the village of Delavan," in Walworth county. The act of incorporation included, among other things, a board of trustees with the power to employ a principal, and an appropriation of $1,000 a year for three years for building purposes and $500 for the support of the school for the ensuing year.

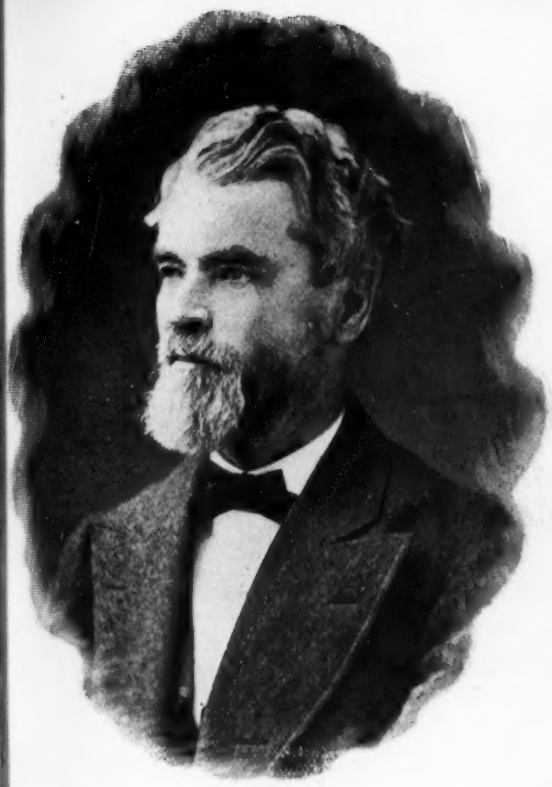
The new building was completed in 1854, and the pupils were moved into it from their quarters in the village. It was a two-story red brick structure, with basement and attic, 33 x 44, and was only a part of a complete set of buildings, consisting of transverse and lateral wings on either side of a main edifice, which was not finished until 1867.

In 1879 the old institution was swept away by fire and was almost a total loss to the State. In its stead, under the general direction of Supt. J. W. Swiler, were reared the present buildings, a modification of the cottage plan, which are well suited more completely to separate and classify pupils of different sex, age, and state of advancement. Later a gymnasium and manual-training school were added, with many minor improvements.

Mr. Walker's Building Policy

Upon assuming charge of the school in 1902, Supt. E. W. Walker believed there was need of more room, better accommodations for housing the different classes of children, and more complete facilities for industrial education. The

[2] Wisconsin did not become a State until 1848.



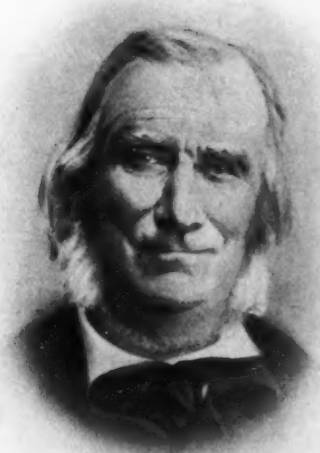
INCREASE A. LIPHAM, LL. D.

A botanist and geologist, who made the first proposal for the education of the deaf in Wisconsin.

F. K. PHŒNIX

Donor of the site of the Delavan School. Mr. Phœnix died on February 3, last, aged 86.

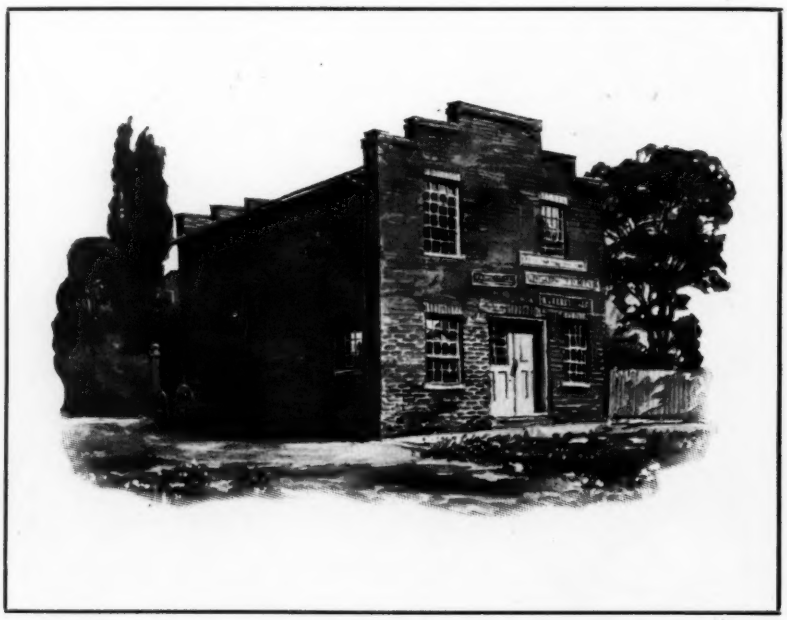
ARIADNA CHESEBRO



EBENEZER CHESEBRO

HOME OF EBENEZER CHESEBRO

At Darien, two miles west of Delavan, where the first school for the deaf in Wisconsin was opened, in 1850.—After a few months the school, which numbered eight pupils, had to be discontinued for lack of funds, and Mr. Chesebro then began the movement for the establishment of a State school.



THE FIRST QUARTERS OF THE WISCONSIN STATE SCHOOL FOR THE DEAF

While the first building was being erected, classes were held in an old brick building at Delavan, above a shoe-maker's shop

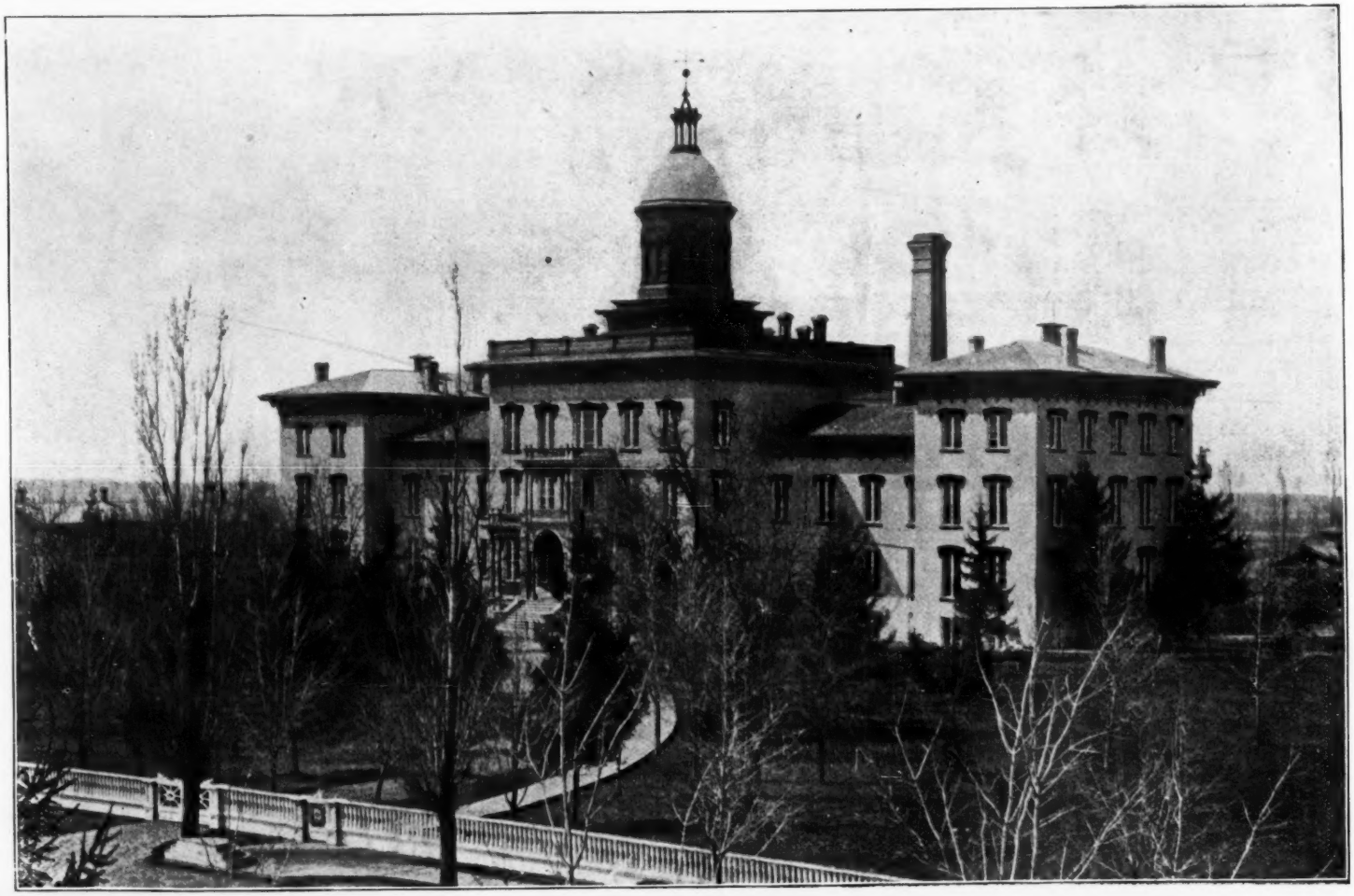
THE FIRST GRADUATING CLASS (1861)

THE LATE MISS EMILY EDDY

First teacher of speech at the Delavan School
(see page 87)

MRS. JOHN A. MILLS

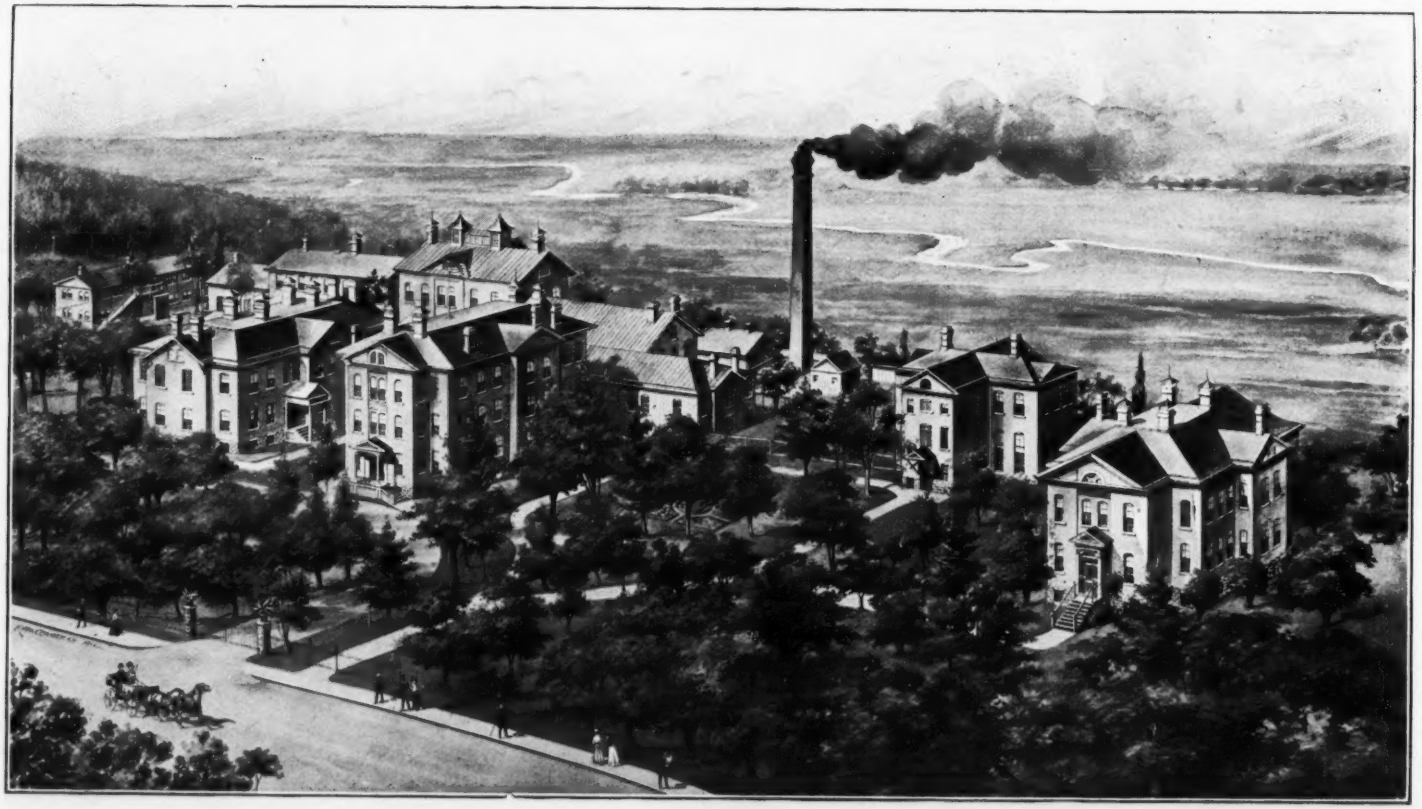
The first teacher of the deaf in Wisconsin.—
Mrs. Mills is still living



THE OLD INSTITUTION BUILDING

Completed in 1867; destroyed by fire September 16, 1879.—A comparison of this school plant with that shown in the next picture illustrates the trend in building policy from the old institutional type to the modified-cottage plan

Completed in 1867; destroyed by fire September 16, 1879.—A comparison of this school plant with that shown in the next picture illustrates the trend in building policy from the old institutional type to the modified-cottage plan



THE WISCONSIN SCHOOL FOR THE DEAF

The buildings of 1880 as they looked before the erection of the girls' dormitory

structures contemplated were a girls' dormitory,[3] an industrial building, and a barn. They are splendid buildings, models of solidity, safety, convenience, and comfort, and their erection marks an epoch in the history of the school. It is Mr. Walker's policy, whether he builds little or much, to build in the best way possible, a policy which he believes is in the interest of true economy in the long run. The last addition is a school building of cream brick, two stories high, with twelve class-rooms and a place for the art department.

So many other things have received attention that there is no room for more than the mere mention of what has been accomplished, which includes, in the main, the remodeling of the old manual-training school, making it a part of the girls' new dormitory and connecting it to the main building by a passage eight feet high, half under and half above ground; the enlarging of the heating plant, which required the excavation of a tunnel under the dining-room six feet deep and the adding of several hundred feet of steam pipe, most of it six inches in diameter, to convey the steam heat to the girls' dormitory; the installing of a new lavatory in the basement of the boys' dormitory; the laying of two thousand feet of cement walks; the adding of eight new forge and other conveniences to the equipment of the forge-room, and the converting of the girls' old dormitory in the main building into a sewing-room, cooking-school, and the setting aside of the girls' old study-room for a museum.

In the furnishing of the girls' dormitory, tables, rugs, and chiffoniers have been secured for seven rooms set apart for the older girls, four of whom are to occupy one room. This is an entirely new arrangement and is considered a privilege largely dependent upon good behavior and general trustworthiness. The boys' rooms, like the girls', have been supplied with new iron beds, practically doing away with the wooden ones that have been in use for years. These changes and improvements put the school on an efficient working basis for the education of the deaf, the blind-deaf, or backward deaf children, and tend to make the life of the children as home-like as possible.

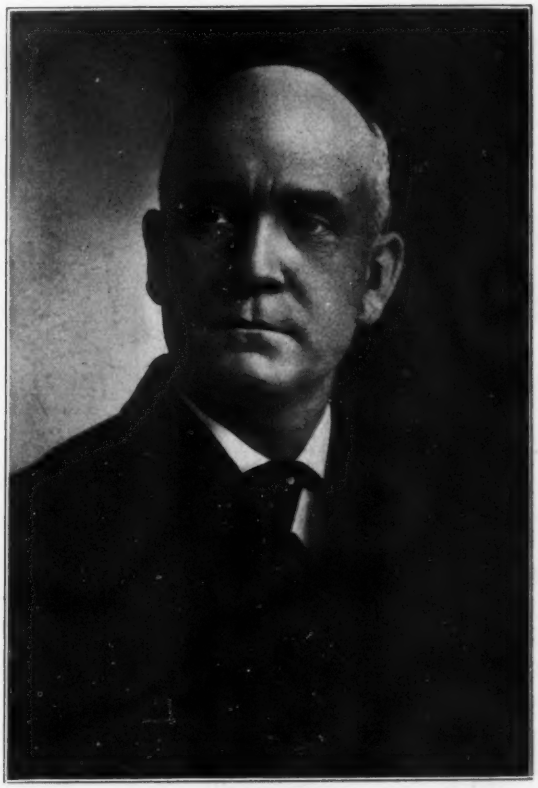
It might be stated here that for the past four years the institution has employed an eye, ear, and throat specialist to look after the pupils in this direction, and to treat cases that needed attention.

"The Making of Men and Women"

Consideration may now be given to the means the school employs to accomplish its real object—the making of men and women. At the outset it is to be borne in mind that education is no longer measured by the classic standard. There is a constant shifting of ground and re-adjustment going on everywhere, to say nothing of the greatly enlarged field of educational effort. In addition to the ordinary branches of former years, new forces are being brought into play by which latent or dormant powers untouched by the older methods are aroused and developed, thus preparing the youth of both sexes to render a better account of themselves in whatever circumstances they may be in life. And it is upon these new forces that the Wisconsin School lays special emphasis. But it is rather the purpose to indicate the extent to which this idea dominates the management than go into details or present any arguments in their favor.

Every child on entering school is given a chance to learn to speak. The work of instruction is conducted on the theory of small classes, for the reason that more individual attention in the case of the deaf insures better results. In all there are now twenty-four classes in the academic department, seventeen of which are oral and the remainder manual. Of these seventeen oral classes, one is an aural class and two are blind-deaf, but practically oral. This shows a steady growth, for in 1895 there were only nine oral classes.

[3] This building contains a commodious gymnasium and natatorium.



MR. AND MRS. E. W. WALKER

Mr. Walker has been superintendent of the Delavan School since 1902; Mrs. Walker co-operates in the management as matron

It might be remarked in passing that the Wisconsin School was a pioneer in speech-teaching in the Middle West. As early as 1861 Miss Emily Eddy had made observations and experiments with a view to the preservation and cultivation of the speech of those who had lost their hearing at an early age, before the organization of regular classes in speech in 1867. Even before this an attempt had been made by a German in Milwaukee to teach speech to a deaf-mute in the fifties.

Special Classes and Departments

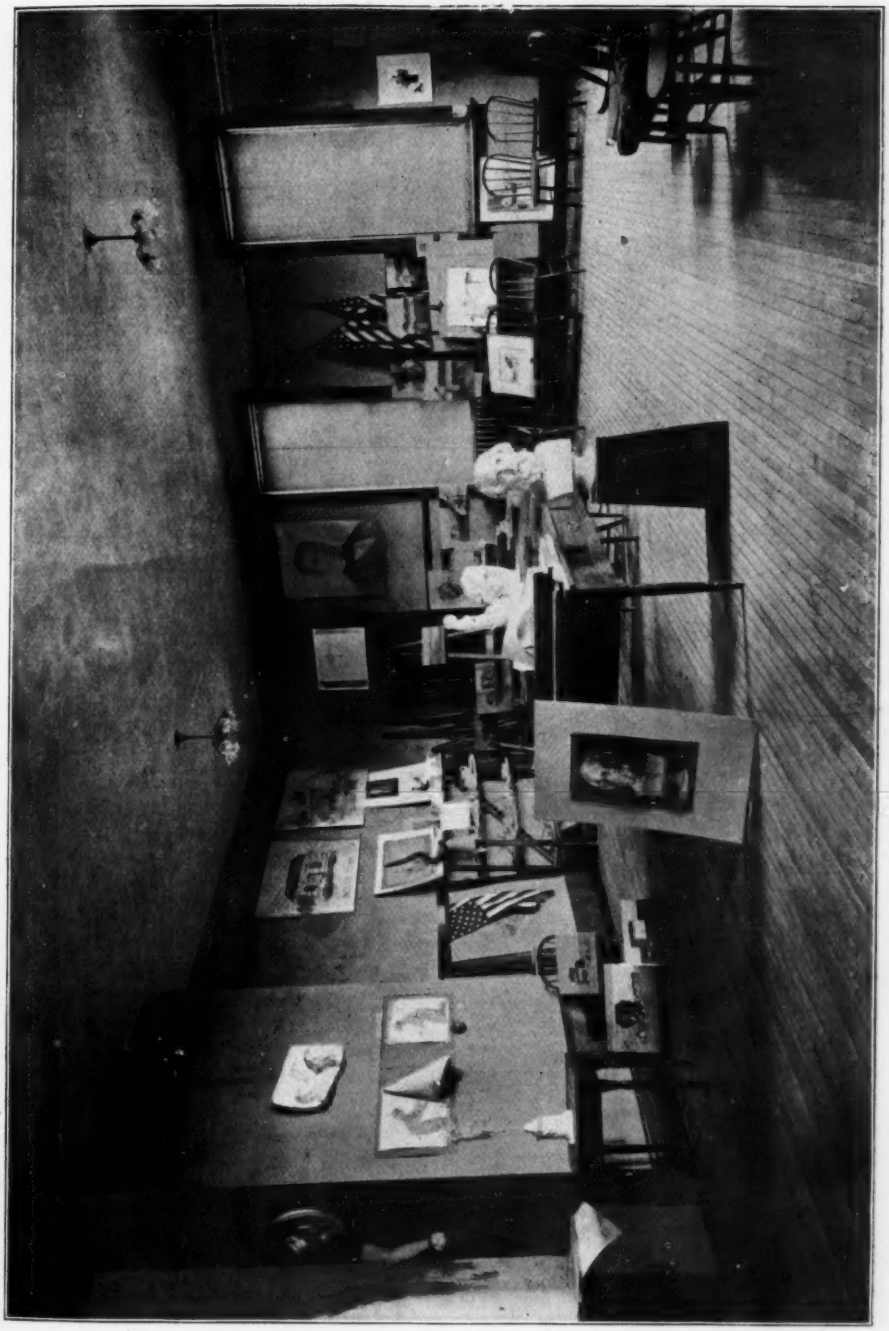
The first blind-deaf pupil admitted was Eva Halliday, in 1902, and since then five have received instruction with results that challenge admiration.

The teaching of the semi-deaf in classes by themselves was begun in 1903. It not only improves the hearing at times, but greatly helps in teaching speech and lip-reading and in making the voice agreeable, not to mention the beneficial influence it exerts over the mental life of the pupil.

Another class of deaf children for whom the school is doing its utmost is the backward deaf; or perhaps, to be more explicit, the mentally deficient. It is most gratifying to note that the results thus far attained amply justify all the labor and pains expended.

In 1905 a high-school department was created, lengthening the course from ten to twelve years, and in 1910 the announcement was made that thereafter only certificates will be issued to pupils completing the ten-year course, while

THE GIRLS' DORMITORY



THE STUDIO AT THE DELAVAN SCHOOL

those taking the full course will be awarded diplomas of graduation.

How Reading Is Encouraged

To reinforce and strengthen the regular work of the school-room, the administration is ever insisting upon the inculcation of habits of reading in the pupils. The library, now numbering 4,000 volumes, is made use of as far as possible for the acquisition of language, which is at once the key to the storehouse of knowledge and a free and intelligible means of communication with the world at large. It should be mentioned in this connection that manual spelling is given a leading place in the manual classes.

Realizing the vast amount of definite and useful information the deaf must acquire through the eye, Superintendent Walker set about collecting a picture library in 1905, and it now embraces 4,500 illustrations of many phases of a wide and varied range of subjects in history, geography, biography, the sciences, the development of modern industries, and animal and plant form, so arranged that any picture can be found at a moment's notice.

To make the objective environment of the school still more complete, a museum has been started, which will no doubt prove of inestimable value as the years go by.

Moral and religious instruction is carried on through the Sunday school and chapel talks and lectures and by prayer meetings by the boys and girls respectively.

That the older pupils may get the most out of their literary gatherings, special committees are appointed to guide and supervise the work of the Phœnix Literary Society for the boys and the Ariadna Society for the girls, which occasionally have a combined meeting, either for a debate or to carry out a program on some general subject.

There are also committees on parties, entertainments, rhetoricals, legal holidays, and on programs for Arbor Day, and Bird Day, and Gallaudet's and Lincoln's birthdays.

Since 1897 training has been given teachers, and up to date fourteen women have received preparation for their work here and elsewhere. While in training they go by the designation of normal cadets.

Such are, roughly speaking, about half the ways and means at the command of the Wisconsin School for the making of men and women; but it would be a poor half, indeed, were it not supplemented by a combination of physical and intellectual activities, which clarify mental processes, give stability and permanency to character, and put young people in direct line for self-support and useful citizenship. The things that the pupils of this school, particularly the blind-deaf, do and can do is a never-ending marvel to the writer.

Teaching a Living

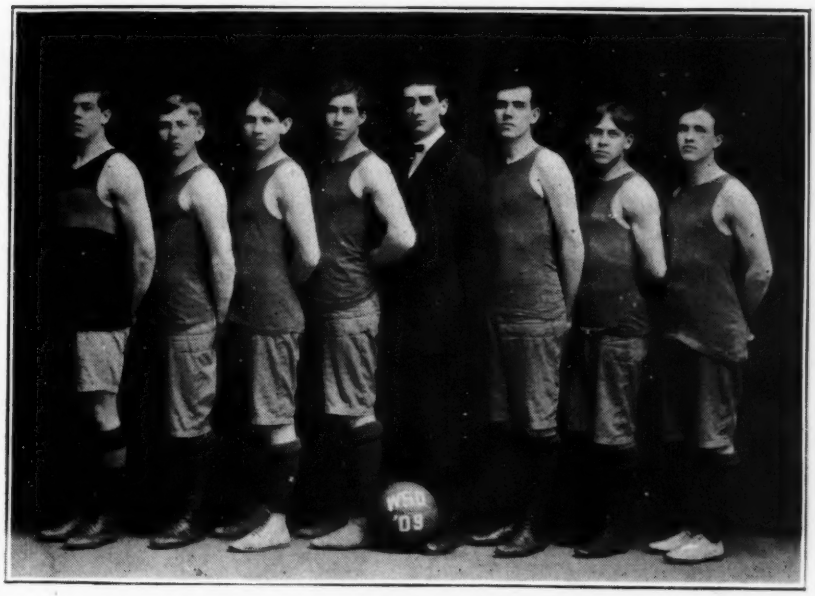
It is hardly necessary to go into an extended description or exposition of the industrial and physical-culture departments. They are their own best demonstration. Since 1860 industrial training has been one of the strong arms of the school, being constantly improved on, extended, and more and more carefully organized.

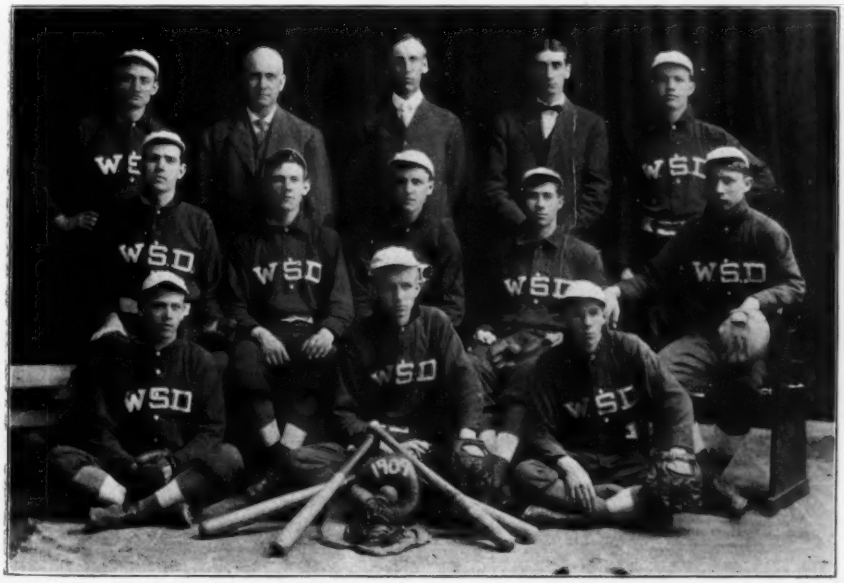
In carpentry and cabinet-making the older boys do all kinds of work, and that means a very large part of the repairs needed about the place.

The time devoted to shoe-making is chiefly taken up in the making of new shoes, general repairing, and mending old shoes for the school. Here the boys either make their own football, basket-ball, or baseball shoes, or have them made. At exhibits the work of this department has been well spoken of. It is an indispensable part of the school.

The high character of the work of the printing department, as evidenced by the make-up of the "Wisconsin Times," is a guarantee that the instruction imparted in this line is of the best. Printing was established in 1878.

Manual training, in which the school was a pioneer, was introduced in 1896, and is one of the most useful branches taught. It offers to boys, large and





THE BASKET-BALL AND BASEBALL TEAMS

The school is also strong in football and track athletics

small, courses in wood-working, which include knife-work, bench-work, and wood-turning; forging, including blacksmithing; and drafting, mechanical and architectural. These exercises, besides stimulating thought, go a long way toward fitting the boys to enter the trades.

The small boys, when not taking lessons, do "chores" and assist in taking care of the grounds.

The domestic training of the girls involves so many things that it is hard to do the subject justice. In the domestic arts, plain sewing, garment-making, drafting, designing and cutting patterns to measure, and embroidery and all kinds of fancy work are taught. In domestic science they are shown how to cook all kinds of food, how to serve a meal, receive lessons in table manners and cleanliness, and do laboratory work, and their attention is called to the classification of food and the importance of health and its dependence on proper food. In addition to all this, they perform many household duties in the kitchen, dining-room, ironing-room, and dormitories.

The millinery department, only five years old, besides affording the girls an opportunity to retrim their own hats, is doing splendid work. The instructor has this to say in favor of millinery for deaf girls: "Three special reasons for teaching millinery are that it develops taste as regards color and matters of dress; teaches economy, in that it enables a girl not only to trim her own hat, but to make the most of the least material at hand, and it may be old material at that; and it may be the means of support to not a few. Preparers, or frame-makers, whose work is in a measure mechanical, can earn from $4.50 to $10 a week, and trimmers much more, as trimming is an art."

Elementary instruction in drawing was first given during Supt. W. H. De Motte's administration (1875-'80), and is now one of the strong educational features of the school.

The work in general includes pencil sketching from life, pen-and-ink work, oil and water color, painting from still life, tooling in leather, work in metal, designs for stencil-work and embroidery, and book-binding.

Athletics and Physical Culture

While some attention had been paid to physical culture previous to the erection of the gymnasium in 1889, that date marks the beginning of systematic training, which has done much to improve the general bearing and physical condition of the children. Exhibitions are given annually in the spring. This step gave an impetus to all the games and sports.

A modern-equipped bowling alley was opened in the basement of the industrial building in 1910.

Athletics antedate physical culture by quite a span, but there was not much organization until the eighties, when the Phœnix Green Athletic Association was formed. This step gave an impetus to all the games and sports. During the last few years the popularity of baseball, football, basket-ball, and track-work has steadily grown. Schedules for regular games, especially in football and basket-ball, are arranged every season with outside teams, and the Phœnix Greens, by which name our teams are known, have earned for themselves a reputation that is not only respected throughout southern Wisconsin and northern Illinois, but is actually feared in some quarters.

According to a table compiled by the writer, showing the actual amount of time spent by pupils in the different branches, the literary department in general exceeds by about half a dozen hours per week the time given to both the industrial and physical-culture departments.

Such, in brief, is the program which the Wisconsin School has laid down for itself for the turning out of symmetrical men and women. It seems to be sufficient to call into action every faculty, every power of the whole mental and physical machinery, by which means only can the fullest physical, moral, and intellectual development be attained.

Since the foundation of the school there have been twelve principals and

superintendents and about one hundred and twenty teachers in all departments. Twelve hundred and forty pupils have shared its benefits, of whom three hundred and fourteen graduated and twenty-three entered Gallaudet College, Washington, D. C. These former pupils and graduates have engaged in seventy-six different professions, trades, and occupations with more or less success.

SPEECH-TEACHING IN THE WISCONSIN SCHOOL[1]

BY ALMIRA I. HOBART, B. S.,

School for the Deaf, Delavan, Wis.; Corresponding Editor of "The Volta Review"

TO Miss Emily Eddy belongs the honor of beginning articulation-teaching in the Wisconsin State School for the Deaf, which was one of the first to introduce oral teaching into its curriculum. This was in the autumn of 1868.

A visit to Miss Harriet B. Rogers and her school at Chelmsford, Mass., shortly before its removal to Northampton, Mass., during her vacation in the East, in 1867, had given Miss Eddy her first ideas as to the practical utility of speech and lip-reading for the deaf pupil.

Instead of learning that it might be added simply as a slight accomplishment in connection with training received principally by signs and written language, she became convinced that a better use of the English language and higher attainments could be made by this medium than without it; that though laborious, it was a practicable undertaking.

After the superintendent had attended the Conference of Principals at Washington, D. C., in 1868 (where resolutions were passed to the effect that adequate means should be provided, in all institutions for the education of the deaf, for imparting instruction in articulation and lip-reading to all pupils who might be able to profit by it), classes were organized which devoted one or two hours a day to this exercise, while still pursuing their studies in the ordinary way of manually-taught pupils.

In 1869 twenty-six pupils were under instruction, taught as above indicated by Miss Eddy.

It was then considered that speech and lip-reading were practicable for only a small proportion of the deaf, principally semi-mutes, and that the sign language was an indispensable medium for the education of most of this class.

The superintendent stated in his report in 1870 "that the progress in articulation work was especially gratifying to relatives and there was no doubt but that a portion in large schools could be so instructed with profit."

Miss Eddy was the only teacher of speech for ten years. During this time a correspondence was continued with Miss Rogers, from whom she received valuable aid in regard to details of instruction. She was also sent to Jacksonville, Ill., where she learned the Bell system of "Visible Speech," or the Universal Alphabetics.

After the first few years she did not teach the symbols to pupils, but esteemed its principles of great value in understanding the exact formation of elementary sounds and in correcting faulty speech.

In these earlier years most of the pupils selected for oral instruction were semi-mutes and those who had once heard, even though losing their hearing before having learned to talk, as these were considered to be more susceptible to such training.

The superintendent, in his report for 1871, expressed the opinion that "a few congenitally deaf or those who had lost their hearing so early that it has never been of practical benefit to them were pleasing illustrations of what could be done by faithful and protracted labor by teacher and pupil."

For several years the policy pursued was to select pupils from the different classes, who spent one hour a day in speech and lip-reading, six in a class, and it was thought that "four-fifths of all our pupils can be best reached by means of signs."

A second oral teacher was added to the corps of instructors in 1878, and one oral class was formed to be taught entirely by means of speech.

Two years later fifty-five pupils out of an enrollment of one hundred and fifty-six were in oral classes, and the superintendent's report mentions the fact that "the importance of the oral department is evident and its perpetuity secured."

In 1886 another oral class was organized in which speech was the medium of instruction.

[1] The history of the growth of speech-teaching in the Wisconsin School for the Deaf is of course by no means typical of that in the pure oral school; but, as indicating the stages through which a school once entirely manual has passed till now speech-teaching occupies an important place in its work, the history possesses points of interest.—ED.

From the autumn of 1886 until 1893 three oral teachers had charge of the articulation work. For several years of this time there were three oral classes, containing about thirty-five pupils, using speech entirely, with fifteen or twenty others who had special instruction twenty minutes or half an hour a day.

In 1892 the oral department was reinforced by two additional teachers, and sixty pupils out of one hundred and ninety-two were in oral classes. About this time each class generally numbered from ten to fifteen pupils arranged in two grades.

The method employed begins with the formation of elementary sounds, followed by drills in combinations, and, as soon as possible, forming and making use of words and short sentences which express simple wants. At the same time, the children are taught to read these elements, combinations, words, and sentences from the lips while learning to speak them. Then, as the pupil advances in knowledge of speech and language, unceasing drill, necessary for correct and more fluent speech, is continued.

The policy for a dozen years past, and at present, is to place each new pupil in an oral class, where every effort is made to teach him articulation and lip-reading. The following is quoted from a recent report:

"The pupil is retained in this department until it becomes apparent that he can never become a good lip-reader. Many deaf children perfectly capable of receiving a good education are not able to read the lips with any degree of certainty. It does not seem wise to retard the child's education for the sake of devoting all his energy to lip-reading and speech. * * * Where the lip-reading is largely guessing and the speech disagreeable or not intelligible, the child is transferred to the manual department."

From year to year the number of pupils placed in oral classes has gradually increased, and the teachers in the oral department have been increased proportionately until of a total of 200 pupils enrolled, 120 are in oral classes under the instruction of fourteen oral teachers. These pupils make practical, every-day use of the speech and language which they have acquired, and it is intelligible.

On Measurement of the Volume of Breathing

"Medicinischen Klinik" ("Medical Clinic") contains a paper by Dr. Hermann Gutzmann, of Berlin University, that was read at a recent meeting of the German Balneological Association. Measurements of breath-volume have hitherto not held any special position at clinical examinations, though their interest and importance are not confined alone to the investigator into voice and speech. The method of measurement hitherto pursued has been of a double nature, namely, a direct and an indirect. By the direct measurement the volume was registered by the aid of a spirometer, the use of which was generally confined to measuring the volume of the exhalation after a deep breathing; *i. e.*, the vital capacity. The duration of the process of inhalation and exhalation lies outside the scope of the spirometer.

Gad is the inventor of another instrument. He placed the person under observation within a cylinder, through the wall of which a tube admitted the outside air to the man. An automatic register was affixed to the cylinder. The extension of the thorax being equal to the inhaled-air volume, it is not only easy to measure this volume but also graphically to control the action of the breathing and the consumption of air.

Equally easy and more agreeable to the person concerned is the indirect proceeding of measurement which is mostly used by Dutch investigators. They use an apparatus constructed so as to apply the principle of Pilot to the measurement of the breathing process by the swiftness of a water current. Twaardemaker employs another apparatus called an "Aërodrometer."

Professor Gutzmann has now devised another contrivance that graphically registers the duration of inspiration and exhalation. It is a bellows apparatus that may be constructed of very light material. To the inlet for the air there is fastened a rotatory stop that registers the amplitude of the intake. By inserting a diminutive apparatus working on the same principle to the orifice provided for the exhaled breath, Gutzmann can measure the relative intensity of the human voice. This auxiliary device is very well adapted to measure in certain curve units the consumed breath-volume when it is momentarily inserted in the exhalation current. He was, however, anxious to obtain measurements of the breath-volume over more extensive periods, and for this purpose he contrived another instrument where two bellows alternately functionate and alternately but continually register the inhalation and exhalation. Through this he found out an individual at rest inhales and exhales from 600 to 800 cubic centimeters of air, and he likewise discovered that a patient at the first deep inhalation drank in some 2,000 cubic centimeters of air. This apparatus establishes the fact that the inspiration is deeper and more accelerated after the inactive respiration, and that the several vowels and consonants incessantly demand a varying quantity of air-volume. It further shows when some unused breath escapes during speech. Pauses in fluent speech provoked through breaks of the ideas are commonly used by speakers for short inspirations.—A. H.

There are fourteen different ways of representing the sound of long *o*, viz., *note, boat, toe, yeoman, soul, row, sew, hautboy, beau, owe, floor, though, oh, O.*

WHAT POETRY MEANS TO ME

THE ART THAT MAKES THE WHOLE WORLD KIN—A BANISHER OF THE BLUES, A TEACHER OF STRENGTH AND COURAGE—SOME POEMS FOR DEAF READERS

BY EDWARD B. NITCHIE, B. A., Principal of the New York School for the Hard-of-Hearing; Editor of the "Volta Review's" Department on "How to Practise Lip-Reading"

POETRY is the highest of all arts. I say this with a regret that some do not like poetry. But for those who do, and it is to them that I write, no other art can give such pleasure, no other art can teach such wisdom, and none other can so inspire and give courage.

I have often thought of poetry as the special possession of the deaf; there are three impelling reasons why it should be. The first is that it is the one art, save only other forms of literature, that belongs every atom to us just as much as to those who can hear. This is obviously not true of music, instrumental or vocal. It is not true of even painting and sculpture, for the highest enjoyment of any art is found in sympathetic companionship, and that is something which the awful silence of the art galleries, where any sound above a whisper is a crime, compels us largely to forego. Our enjoyment must be the enjoyment of solitude. With poetry even companionship of enjoyment is not denied; for, though we cannot hear while others read, we can read while others listen.

I have said that the full pleasures of music are denied us, but not of the music of poetry. I can still enjoy music in a way, as can most who like myself are only "hard of hearing." I delight in a brass band and a good rousing tune or air, on whatever instrument performed. But the quieter music, that gives so much delight through its harmonics, its counterpoint, holds nothing for me. The finer beauties of the music of poetry, however, are all mine. They are not only in the rhythm and melody. Sidney Lanier has dared to find and give us also harmony, counterpoint, and, in "The Symphony," even the effects of orchestration. I can conceive of no more haunting melodies in music than are to be found in the poetry of Poe, no more sublimity of rhythm than is to be found in some of the wonderful passages of Whitman, no more sweetness of tune than Tennyson gives us in "The Brook." No deaf man who retains the memory of sound can be deaf to these beauties that are heard with the ear of the soul. I verily believe that because I am denied the full enjoyment of other music, I enjoy poetry's music more than do those who hear. I concentrate the pleasures of both into the pleasures of one.

The Human Note

But poetry has more truly a peculiar appeal to us than in the mere fact that all of its beauty is ours. One thing that the deaf need above most others is to be drawn out of themselves and away from their affliction. We need to be taught that what differentiates us from others is of minor significance; that what is of utmost significance are the countless bonds and ties of fellowship we have with every one. It is a little thing to be deaf when you think what a tremendously wonderful thing it is to be men and women. All truly great poetry must answer to this test of Fitz-Greene Halleck's appreciation of Burns:

> "His that music to whose tone
> The common pulse of man keeps time."

No other art so genuinely expresses the universal feelings of the race, and by no other are our hearts made to beat in such perfect time with the pulse-beat of humanity. We are not deaf when we are being inspired by poetry; we are simply men and women, forgetting our

individual faults and foibles and conscious only of the vision and the prophecy which we are sharing with all mankind.

A Cure for the "Blues"

As a banisher of the blues, poetry claims a place close on the heels of work; for both work and poetry take us out of ourselves and into touch with others. The "blues" are a manifestation of selfishness; our thoughts are centered on the relation of things and of people to ourselves instead, as they should be, on the relation of ourselves to these people and things. Everybody likes a good story, and stories, as well as poetry, are workers of magic in drawing us into fellowship with the universal joys and sorrows of the race. But when the story is a narrative poem, such as Longfellow's "Evangeline," the magic of the tale is reinforced by the higher magic of imagery, rhythm, and beauty. A fit of the blues that will stand such treatment can be cured only by a dose of good hard work. Read "Evangeline" or "The Idyls of the King," or any great narrative poem. Whether you like poetry or not, you will enjoy the story and unconsciously and unbidden the necromancy of the poetry, too, will steal you away from thoughts of your affliction and restore you to normal relations with those around you. If, however, you do have a genuine liking for poetry—not merely for its imagery and its music, but also for its vision—read and re-read Emerson's "Sphinx," Whitman's "Passage to India," or Tennyson's "In Memoriam," and deafness and every other mortal ill are lost in the overwhelming greatness of the vision splendid which they reveal.

And this is the chief reason why poetry should have for us a special appeal; it satisfies our needs and teaches us strength and courage to bear our burdens. No other art so reveals to our search the perfect source of strength. All arts truly must have a spiritual message; but poetry alone has the power to express the message clothed in the beauty of music, the beauty of form and color, the beauty of thought and ideas. It is Emerson who tells us, speaking for the "poet," that man's

> ". . . soul sees the perfect
> Which his eyes seek in vain."

And that which the soul sees the poet tells in words of wisdom and mystery, and if we, too, can see with our souls, the mystery becomes plain. If, on the other hand, we are like Peter Bell, to whom

> "A primrose by the river's brim
> A yellow primrose was to him,
> And it was nothing more,"

then neither poetry nor vision can have any message for us. But, as I have said, I am writing to those who love poetry. For teaching faith and courage the Bible itself attests that poetry is the chief of mediums. Is there anything in all the Book which equals for this purpose the Twenty-Third Psalm? Is not that the lesson that we need when our deafness causes us to falter and despair? The Psalms are among the greatest poems in all literature.

"I Am the Captain of My Soul"

Walt Whitman has been accused of the grossest materialism. True though that may be, it is also true that for sublimity of faith I know no other poet who compares with him. Often when faith grows dim and courage falters I seek for and find their renewal in his "Passage to India." And to you also who may need such strengthening when deafness or any other ill oppresses you, I commend the poem and particularly the triumphant faith of the concluding lines:

"Sail forth—steer for the deep waters only,
Reckless, O Soul, exploring, I with thee and thou with me,
For we are bound where mariner has not yet dared to go,
And we risk the ship, ourselves, and all.

"O my brave soul!
O farther, farther sail!
O daring joy, but safe! are they not all the seas of God?
O farther, farther, farther sail!"

EQUATIONAL METHODS

"THE EQUATIONAL METHOD IS MORE BEAUTIFUL, MORE CONCISE, AND AVOIDS THE USE OF DIFFICULT LANGUAGE"—HOW IT IS TAUGHT

BY BARTON SENSENIG, M. S.,
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THE equation is the great instrument of mathematical investigation. Modern writers on arithmetic use the equational method far more than those of twenty years or more ago. The equation was considered to have its proper place in the study of algebra. Writers who are trying to make the study of arithmetic easier and who are following the path of least resistance have introduced the equational method in arithmetic. Questions that required much difficult English for their explanation by old methods are fully and yet concisely explained by the equational method. We use this method to a great extent in the Advanced Department of the Mt. Airy Institution, because language, which is difficult for hearing children and more so for deaf children, is avoided.

As an example of the verbiage necessary fully to explain a little problem by the old-time method, I shall quote the solution of a problem verbatim:

Problem: What part of $\frac{2}{3}$ is $\frac{4}{5}$?

Solution: $\frac{1}{3}$ is $\frac{1}{2}$ of $\frac{2}{3}$, and $\frac{3}{3}$, or one, is 3 times $\frac{1}{2}$, or $\frac{3}{2}$ of $\frac{2}{3}$. Since one is $\frac{3}{2}$ of $\frac{2}{3}$, $\frac{1}{5}$ is $\frac{1}{5}$ of $\frac{3}{2}$, which is $\frac{3}{10}$ of $\frac{2}{3}$, and $\frac{4}{5}$ is 4 times $\frac{3}{10}$, which are $\frac{12}{10}$, or $\frac{6}{5}$ of $\frac{2}{3}$. Therefore $\frac{4}{5}$ is $\frac{6}{5}$ of $\frac{2}{3}$.

The equational method proceeds as follows:

Let x = the part,

then $x \times \frac{2}{3} = \frac{4}{5}$

$x = \frac{4}{5} \div \frac{2}{3}$, which is $\frac{6}{5}$

The equation, $x \times \frac{2}{3} = \frac{4}{5}$, is a direct translation of the written problem into mathematical terms. x takes the place of the two words *what part, of* always means *times* in arithmetic, and *is* means *equals*. There are many troublesome little problems on different topics in arithmetic which lend themselves to the same treatment.

Problems cannot be done by the equational method until the equation is fully understood. The explanation of the equation is A-grade work, but I think the sign of equality should be much more used in the other grades than it is. x may also be used instead of the interrogation point. Problems should be set down horizontally instead of vertically; this involves the use of the signs for the fundamental operation and the sign of equality. Teachers may form the habit of setting down problems in the vertical way to such an extent that their pupils almost forget the meaning of the signs.

$6+8+9+5=?$ is an equation. $4+7-5+6-7=x$ is an equation, in which $x=5$. The equals sign may be used in questions like this: A man bought a horse for \$60 and later sold him for \$80; how much did he gain?

Solution: \$80=the selling price;
\$60=the cost;

\$20=the gain.

How to Teach the Symbol of Equality

Various ways may be employed to impress upon pupils the real significance of the symbol of equality. Every deaf child who knows any signs knows the sign meaning *the same as*. The fore finger of one hand placed beside the fore finger of the other represents the two strokes in the sign of equality. That explanation is made to the pupils, and I do not plead guilty to the accusation that I teach signs. If deaf children have been in an institution from five to ten years and do not know that sign, it is not to their credit. My excuse for referring to the manual sign is that it is pedagogically correct to have new knowledge engrafted in past experiences.

This principle may be employed to impress upon pupils the fact that the equation is simply a balance. My pupils have all played "see-saw." Can a heavy man and a little boy play the game? Or, if two persons are playing and a third person comes and sits on one side, what will happen? To balance, both sides must be the same. We show that the equation has two sides: the part on the left side of the sign of equality is the left side, or the left member; that on the right side is the right member.

$5+3=8$ is an equation, because one side balances the other. $5+3$ is the left member; 8 is the right member. The sign of equality separates them. A number of problems containing the sign of equality are submitted to the pupils who are to decide whether or not they are equations. For example, $5+3=12-6$ is not an equation, because the two sides do not balance.

A good drill involving the four fundamental signs—the sign of equality and the symbols of aggregation—may be given by having pupils decide as to whether or not statements like the following are true:

(*a*) $6+7-5=(8\times 2)-8$.

(*b*) $(24\div 6)+(3\times 5)=(119\div 7)+(16\div 8)$.

(*c*) $(2\tfrac{1}{2}\times 6)-(4\times 2\tfrac{1}{2})+(16-12)\div 4=24\div 3$.

(*d*) $4(6+8-5)+(17+8)\div 5=(25+64-32+1)\div 2+12$.

(*e*) $\overline{4+10}\div 7+\{6\times(12\div 3)\}=(100+25)\div(5\times 5)+(63\div 3)$.

(*f*) $10\times\{4\times(12\div 3)\}=[150\div\{15\times(8-3)\}]\times 80$.

Symbols of aggregation, especially the parenthesis, have been too much neglected in our work.

Transposition

The next point to establish is that quantities may be transposed from one member to the other by changing their signs. Thus:

$5+3=8$;

$5=8-3$.

$+3$ becomes -3 when transposed.

$9-6=3$;

$9=3+6$.

-6 becomes $+6$ when transposed.

Referring to our game of "see-saw," we remind the children that when a person changes sides he changes the direction in which he looks. The signs + and — refer to opposite directions. When no sign is written before a number, the positive sign (+) is understood.

In submitting exercises in transposition to pupils, I found that they frequently took the sign after a number as belonging to it. This error seemed to me almost inexcusable after all that they had seen. Circles were put around each number and its sign, to impress the idea that the sign of a number is the sign before it. After that pupils were obliged to correct their errors at recess.

We must *expect* deaf children to do good work. A certain superintendent was asked by one of his directors why such poor progress was made in arithmetic. He reminded the director that his pupils were deaf. The successor of this superintendent has assumed all along that deaf pupils should be able to do

about as much as hearing children, and it is needless to add that more progress has been made under the latter's administration. I know of a few deaf boys who were allowed to do about as they pleased in their homes, because they were deaf. They are now able-bodied men who do not support themselves. The correct attitude is to expect good work from deaf pupils.

Axioms

We have shown that an equation has two equal sides, and that numbers may be taken from one side to the other by changing their signs. There are certain *axioms* employed in transforming equations. An axiom is defined as a self-evident truth. It is evident to deaf pupils after it has been explained. The axiom that things which are equal to the same thing are equal to each other becomes apparent after an illustration like this:

$3+2=5$;
$4+1=5$;
So, $3+2=4+1$, because both are equal to 5.

Other axioms are: the same or equal quantities may be added to, subtracted from, multiplied by, or divided by the same or equal quantities. Examples:

(*a*) $4+6=10$;
$4+6+3=10+3$.
(*b*) $5+8=13$;
$5+8-2=13-2$.
(*c*) $6+2=8$;
$4(6+2)=4\times 8$.
(*d*) $10+5=15$;
$(10+5)\div 3=15\div 3$.

An equation is cleared of fractions by multiplying both members by the least common denominator of all the fractions involved. We may perform this operation according to the axiom that equals may be multiplied by the same number and the results will be equal. It takes but a few lessons for pupils to learn what operations may be performed.

The Symbol "X"

The use of x for an unknown quantity involves no new difficulty in the solution of an equation. x simply takes the place of the interrogation point.

Examples:

(*a*) $10+?=12$;
$10+x=12$;
$x=12-10$;
$x=2$.

(*b*) Eight times a number is 72; what is the number?

$8\times ?=72$;
$8\times x=72$;
$8x=72$;
$1x=9$;
or $x=9$.

(*c*) Four times a number plus 6 times the number=120. Find the number.

Let x=the number.
Then $4x+6x=120$;
$10x=120$;
$x=12$.

(*d*) John and James together have 42 acres of land. John has 6 times as many as James. How many acres has each?

Let $1x$=James' number of acres,
Then $6x$=John's " " "
and $7x=42$,
$x=6$=James' number.
$6x=36$=John's "

Advantages of the Equational Method

The excuse for introducing x in A-grade work was hinted at in the beginning of this article. It admits of the equational treatment in the solution of problems. The equational method is more beautiful, more concise, and avoids the use of difficult language. More beautiful? Decidedly, yes. When the statements are set down in straight lines with all the signs of equality in a vertical row and the figures and signs well made, the equational solution is beautiful. Whether this method is followed or not,

teachers should insist on pupils making beautiful figures.

The ten figures used in arithmetic are beautiful. If you do not think so, take a day off and see if in that time you can invent a figure which is as easily made and as beautiful as the figures used in arithmetic. We appeal to the understanding and are satisfied when correct results are obtained, but we should also insist on neatness of work. Of course, correct results are the more important: the pupil who gives me the most mental pain is the one who knows how to do everything, but who never gets anything right.

I shall conclude by giving some examples done by the equational method.

(1) What per cent of 16 is 10?

By direct translation, $\frac{x}{100} \times 16 = 10$.

$$16x = 1000$$
$$x = 62\tfrac{1}{2}$$

Result: $62\frac{1}{2}\%$ of 16 is 10.

(2) What per cent. of 10 is 16?

$$\frac{x}{100} \times 10 = 16$$

By cancellation, $\frac{x}{10} = 16$

$$x = 160$$

Result: 160% of $10 = 16$.

Observe that there is no confusion as to base.

It is just as easy to do problems involving fractions:

(3) What per cent of $\frac{7}{8}$ is $\frac{3}{4}$?

By direct translation, $\frac{x}{100} \times \frac{7}{8} = \frac{3}{4}$.

Multiplying by 800, $7x = 600$

$$x = 85\tfrac{5}{7}$$

Result: $85\frac{5}{7}\%$ of $\frac{7}{8} = \frac{3}{4}$.

(4) What per cent of $\frac{3}{4}$ is $\frac{7}{8}$?

$$\frac{x}{100} \times \frac{3}{4} = \frac{7}{8}$$

Multiplying by 400, $3x = 350$

$$x = 116\tfrac{2}{3}$$

Result: $116\frac{2}{3}\%$ of $\frac{3}{4} = \frac{7}{8}$.

Interest problems fall under four cases: it is required to find either the interest, the rate, the time, or the principal. In using x we use the statement:

Principal × rate × time in years = interest.

Any three of these factors being given, the fourth may be found. Of course pupils must first see that the statement is true before they use it.

I shall give only one problem under this subject:

(5) What sum of money on interest for 80 days at 6% will give \$60 interest?

Principal × rate × time in years = interest.

Let x = the principal.

Then $x \times \frac{6}{100} \times \frac{80}{360} = 60$.

By cancellation, $\frac{x}{75} = 60$

$$x = \$4{,}500$$

(6) A merchant sold goods at $37\frac{1}{2}$c. a yard, gaining 25%. Find the cost.

Let x = the cost.

Then $\frac{1}{4}x$ = the gain,

and $\frac{5}{4}x = 37\frac{1}{2}$c.

$$5x = 150\text{c.}$$
$$x = 30\text{c., the cost.}$$

(7) An agent's commission at 4% for selling wheat was \$250. Find the value of the wheat sold.

Let x = the value of the wheat sold.

Then $\frac{1}{25}x = \$250$.

$x = \$6{,}250$ = the value of the wheat sold.

(8) A merchant sold two stoves at $30 each. On one he gained 20% and on the other he lost 20%. Did he gain or lose by the transaction?

Let x = the cost of the first stove.

Then $\frac{x}{5}$ = the gain,

and $\frac{6}{5}x = \$30$

$\frac{x}{5} = \$5$ = the gain.

Let y = the cost of the second stove.

Then $\frac{y}{5}$ = the loss,

and $\frac{4}{5}y = \$30$,

$\frac{y}{5} = \$7\frac{1}{2}$ = the loss.

$\$7\frac{1}{2} - \$5 = \$2\frac{1}{2}$ = the loss on the transaction.

(9) Six beams, each 20 feet long by 1 foot wide, contain 30 cubic feet. Find the thickness of a beam.

Let x=the number of feet in thickness.

Then $6 \times 20 \times 1 \times x = 30$

$120x = 30$

$x = \frac{30}{120}$ or $\frac{1}{4}$.

The beams are each $\frac{1}{4}$ foot, or 3 inches thick.

(10) A field containing 25 acres is 80 rods long. What is the width?

Let x = the width.

Then $80 \times x = 25 \times 160$

$x = \frac{25 \times 160}{80} = 50$

The width = 50 rods.

Pupils delight in this method, and a number of them have told me that Mr. x is their best friend.

TO THE FRIENDS OF THE DEAF

BY MISS L. M. BEMIS,

Teacher of Phonetics and the Universal Alphabetics

FOR about a month recently a large New York daily has published an open discussion relating to the possibilities and the limitations of speech-reading. As a speech-reader and a teacher of speech-reading I am constrained to use this as the basis of my appeal to the friends of the deaf.

"Recently," says a contributor to this debate, "I was about to cross a street in New York when during a lull in the traffic a man apparently blind started to go across a short distance ahead of me. He was espied by one of the white wings (a street cleaner), who at once deserted his implements of warfare against dirt and piloted the blind brother to the opposite side. This was performed with as much tenderness as a woman would have shown had she been appealed to to give the same assistance."

There being no policeman at hand, the deaf sister in the rear now approaches the white-wing gentleman and asks to be directed to a certain street in the vicinity. Failing to understand his reply, she informs him of her deafness and "would he speak a little louder, please." After two more shouted answers he turns away in obvious disgust, while the sister is at liberty to inquire elsewhere for the information.

This comparatively inconsequential incident is not given for any value of its own, but to illustrate the frequent treatment the deaf and the blind receive at the hands of strangers.

The sightless eyes are a visible appeal to sympathy, while the defective auditory nerve is out of sight. Again, to help the blind causes little inconvenience to the one giving the aid, while the cor-

responding party to the deaf not uncommonly suffers embarrassment to the extent of annoyance. Humanity is *so* human, and gives aid most spontaneously when no inconvenience is involved in the rendering.

Nor is it for me to meddle with the established order of things. I ask only for intelligent and uniform thoughtfulness in dealing with those deprived of so important a function as hearing. A little proper aid is worth mines more than much misdirected effort.

The following suggestions are offered after a long study of the subject. They are the result of repeated questionings of not a few of the deaf, some my own pupils and some not.

Our hearing friends must remember first, last, and always that repetition of a remark is often necessary for the speech-reader. A repetition of the whole remark is usually wisest. This should be done as graciously the fourth time as it is the first. Absolute serenity of mind is important. Even slight embarrassment hinders a complete concentration upon the words of the speaker. It jars upon the mental movement of the speech-reader, for it is with the mind as well as with the eye that he follows what is being said.

Then, too, the speaker must see that a good light shines on his face and not into the eyes of his deaf friend. He must speak smoothly, at an ordinary speed, holding the head STEADY. He should aim at a flexible movement of the vocal organs. It is well, also, to have the mouth of the speaker a little below the eyes of the speech-reader.

Sometimes it is possible to read the lips with a degree of ease if the above conditions are not all present. Like the art of understanding conversational German, greater perfection can be reached under ideal conditions than when beset with difficulties.

It is due us to be surrounded by every help. It is due us to be placed in those favorable circumstances which will restore us in the highest degree to a normal position in the social world.

Friends, I was about to ask you to take to heart the above counsel, but I will alter one word. Will you not take it to your minds instead? We have your sympathy already. There is unlimited evidence of it in the progress of the general condition of the deaf during the past ten years. We need a little conscious mental effort on your part.

Those who deal habitually with the deaf so cultivate doing the proper thing that they soon come to experience joyful relationship. This same privilege is open to such as mingle occasionally with them.

Finally, friends, will you not do whatever you can do?

THE WOMAN WHO ADAPTED HERSELF

A SCULPTOR models from life, a teacher molds the life itself, and both, if born to the work, attain the same high satisfaction of the creative instinct. Let us say that you are such a "born teacher;" principal of a public school; verging, moreover, on middle life; when your hearing fails. What is to become of your career?

This is the life-story of a woman who has solved the problem. She did not give up teaching; instead, she adapted her teaching to conform to the necessities of a constantly increasing deafness.

Mary Eleanor Slason was born in 1843. Her native town is Rutland, Vt., famous for its marble quarries, in the opening of which her grandfather was a pioneer. At eighteen she became a public-school teacher; at thirty-seven she was in charge of a grammar school containing 200 pupils, in Brattleboro, Mass. It was at about this time that she observed a singing in her ears.

Miss Slason consulted a Boston specialist. "Nonsense," he said; "you hear as well as seven-eighths." This was true. Nevertheless, by the end of the

school year, Miss Slason was noticeably deaf. The cause of her increasing deafness was simple; it was merely dry catarrh, inflaming the eustachian tubes. Today her hearing might have been saved, under proper treatment in the early stages of the affection.

Finding herself unable any longer to conduct a large school, Miss Slason resigned her principalship and started a small one—a "play school," as she called it—where the children had a good time learning, and withal learned so fast that they were ready for high school in two-thirds the time required by the old methods of teaching. A relative died, leaving Miss Slason enough for her maintenance, had she preferred to give up her work, and idly to repine her affliction. Instead, she used a good share of her legacy on her school.

At the end of six years Miss Slason had fifty pupils in her school. Then her hearing grew worse, and she gave up the little school as she had previously given up the large one.

She went to Andover and boarded boys who were preparing themselves for Yale at Phillips Academy. Here she spent a number of happy years, acting as a second mother to her houseful of boys, while at the same time she was carrying on a private elementary school for boys and girls.

Then came a chance again to take up teaching exclusively, at Dana Hall, a private grammar school for girls at Wellesley, and she accepted. At Wellesley there was another period of teaching, of associating with the children she loved, of everything that meant happiness to her. Then the inevitable further loss of hearing—and more. She lost the sight of her right eye. This was nine years ago.

At this time Miss Slason thought more than once of suicide. She never thought of retiring and living on her legacy.

Half blind and almost totally deaf, it would now appear as if Miss Slason could never teach again. It is true that she never taught the learning of books thereafter. Instead, she took up a new subject—basketry. She learned all the squaw weaves; learned them with such a close approach to perfection that some of her baskets can pass for those of native manufacture. Then finally, when she had mastered the many delicate, patient Indian weaves, she entered settlement work in Boston as a teacher of basketry to the boys of the streets and the docks. Her field of teaching broadened to include the blind, the neurasthenic, and, finally, those who loved the beautiful things that could be woven from raffia, willow, and reed, and who desired to learn the craft. In the midst of her teaching, Miss Slason was even able to add to a knowledge of the subject by originating a method of making reed baskets without leaving the loose ends exposed.

One day a pupil brought in a wonderful Chinese willow basket. She studied it for a month, and at the end of another had reproduced it—not in willow, but in reed. For this piece of work the Boston Arts and Crafts Guild made the half-blind woman a "master craftsman." It was this specimen of her handicraft, also, which finally led, in the fall of 1909, to her appointment as instructor in basketry at the Arts and Crafts School, at Washington, D. C.

Here very probably the last chapter of this brave life-story is to be written. Miss Slason's deafness, at least, is in its last stages. With the aid of her wits and a powerful trumpet she can understand words spoken into her right ear; her right eye is quite sightless, while the sight of her left eye has been threatened and barely saved; and, as a crowning misfortune, she is in constant pain as the result of a fall which she suffered some months ago. Withal Miss Slason still teaches a full thirty hours a week. She is not yet beaten. Teaching is her *metier*, from which no force of circumstance or fate has yet availed to shake her. Miss Slason's career shows selflessness, resourcefulness, fixity of purpose—qualities which, once learned by the deaf, will surely save them from being engulfed in their misfortune.—F. K. N.

THE USE OF THE BELL SYMBOLS IN WRITING CHINESE

BY MRS. ANNETTA T. MILLS, School for the Deaf, Chefoo, China

WHEN foreigners—*i. e.*, Americans, English, *et al.*—began the study of the Chinese language and dialects, they met at the very outset with a serious difficulty. There was no phonetic alphabet in which to record the sounds of the ideographs, and some of the dialects, like the Shanghai, Ningpoese, and Cantonese, had never been reduced to writing.

Students of the language were obliged to depend upon the voice of a living teacher, and, as this was not always convenient, they naturally turned to the Roman letters as a means of recording the sounds and combinations. Many systems, acknowledged inadequate even by their promoters, have been devised, those most in use being Sir Thomas Wade's and S. Wells Williams' systems.

Some of the difficulties met with in the use of the Roman alphabet may be of interest. For instance, in the use of the vocal and non-vocal consonants, most students of Chinese recognize three different effects with each similar position, namely, a *b*, a *p*, and an aspirated *p*. These differences are largely due to the force of aspiration, and in providing for them they adopted the use of the *b* for certain words; *p* for others, in which it was hardly possible to decide whether it was *b* or *p*, and a *p* followed by a comma to mark strong aspiration (*p*,). In the actual working out of this system it was found that the *b* was rarely used. This applied to all of the consonants. The result has been an imperfect use of the aspirates and non-aspirates among students of the language, who depended upon the Romanization for the pronunciation, which has fixed itself on the names of places and people.

To illustrate, the name of one of China's greatest statesmen, Li Hung Chang, is rarely pronounced correctly, it usually being heard as Lī Hōng Chăng (ωJr Oϟϵ ΩΩlϵ) instead of ωl Oϟϵ ΩΩJϵ.), mistakes being made in the vowels which follow continental rules as well as the consonants. It might have been better to have spelled it Lee Hōng Jahng. The first part of the name of the former viceroy, Tuan Fang, is another case in point, as the *t* should be heard as *d*—Duan, or Dwan (ϖ϶lϖ).

Among geographical names the usual pronunciation of Peking with an aspirated *p* instead of *b* is common. Foreigners also mispronounce the name of China's noble river, the Yang Tse Kiang, which among Mandarin-speaking Chinese is known as Yahng Dzĭ Giang, the double-dotted *i* representing a close, obscure vowel and the *g* heard as hard. In spite of drawbacks, these systems have been of great use, especially in mission work, school books, hymns, and the Bible being printed in them for people who used only dialects.

A few years ago an attempt was made to devise a standard system of Romanization in which *b, d, g* hard, etc., should be used, with the comma as a mark of aspiration omitted. This is the system used at the School for the Deaf in Chefoo. In the article "China through a Car Window" the popular spelling of names, people, and places was followed with the correct pronunciation given in the Melville Bell symbols. This will explain what may seem to some to be errors in use of the voice-mark in the symbols. Unfortunately I was not able to read the proof of the article, and two errors crept in, namely, *Nan Ko* Southern Pass should have the *k* aspirated (ᗡ not ϵ), and in Tai-Ping *p* (ᗤ) should be used, not *t* (ᗢ).

To depend upon the spelling of Chinese words to get the correct pronunciation is often most misleading.

There are but two ways to get the true value of the sounds—one directly from the teacher, the other from the Melville Bell system of Universal Alphabetics or "Visible Speech" symbols.

REMINISCENCES OF A RETIRED EDUCATOR

BY RICHARD ELLIOTT, M. A., L. H. D.,

Sometime Headmaster of the Royal School for Deaf Children, Margate, England

XV

ADMINISTRATION OF THE MARGATE SCHOOL

NOTWITHSTANDING that the work in Margate, begun with the *eclat* which the presence of royalty gave, attracted some attention, yet, on the whole, little notice was taken of the children, and but few kindnesses were shown to them. This, perhaps, may have been due to the fact that there were then, in the place, few residents of means; that the Institution, having the reputation, erroneously ascribed to it, of being "very rich" it was looked upon as being in a position to *give* to the neighborhood, rather than to require to receive from it; that the traditional mode of treatment of the children seemed to be to isolate them from any outside influences, the management being apparently nervous of anything that might tend to lead to interference.

One person however showed some interest—the Vicar, the Rev. William Benham. He was a remarkable man, entirely self-made. By dint of persevering industry and natural talent, and notwithstanding the absence of early social and educational advantages, he had raised himself to his position, and eventually to a distinguished place in the literary world, and in the Church, which he maintained during a long and busy life, only just lately terminated. He was very popular in Margate both in and out of the pulpit.

Many amusing tales were told about him, as he was quite unconventional in his ways, everybody's friend, kind hearted and lavish in promises though somewhat slack in fulfilling them. He came to our pupils' little entertainments, which he said were "the jolliest things in Margate." He advised me to be ordained, as he believed it would help my work and my social position. On my stating that I had hardly any knowledge of the necessary Greek to pass the examination, and little time to study it, he said, "Oh, that need not bother you; you only want enough of it to blunder through the New Testament."

On one occasion, he was taken to task by the Town Council, because, small-pox having broken out in a neighboring village, he advised his congregation, in church, on a Sunday to take suitable precautions against the malady. Margate lives on its reputation as a health resort, and the town authorities took care then, as they do now, to suppress the news of, or to make as little as possible of any rumor of the outbreak of illness in or near it. Accordingly the Vicar's public reference to it gave them great offense, and a Resolution expressing strong disapproval of his action was passed in the Town Council with due formality, and communicated to him. His acknowledgment was to the following effect—I quote from memory:

"DEAR MR. TOWN CLERK:—

"I have received your letter containing a copy of the Resolution referring to the advice I gave to my congregation, and desire to express my regret that so nice a sheet of foolscap was spoilt by so silly a communication.

"WILLIAM BENHAM."

We all worked vigorously in the organization of the instruction and the internal discipline of the Institution. It was my happy experience to have around me willing workers, always ready to carry out my plans intelligently and indefatigably. And throughout all my educational career, I feel that I, myself, and the work in which I was engaged, have great reason to be thankful for the ready response which my fellow workers made to the calls their duties made on them. I think that I did not spare my own exertions, and I certainly succeeded in enlisting theirs. I always found that I got whole hearted co-operation by saying, "*Come* and do this" rather than by issuing the order, "*Go* and do it."

Our school was bright and new, as was all the furniture. The children, all in one room, were all seen at once on entering it, in their various classes; and the sight of them, industriously engaged in their work, struck visitors as a most interesting spectacle. The school-room itself was long and narrow, and the lighting, which came only from the north, was not perfect; but the outlook was pleasant, and we all made the best use we could of the provisions given us. We felt a pride in our pleasant surroundings. For more than three years, not a spot of ink nor a scratch was to be seen on a desk or a form. And on more than one occasion, after school, I saw Mr. Gibbs vigorously rubbing out with salts of lemon, or some such substance, spots of ink on the floor, accidentally spilt by some boy.

Our children became more and more objects of interest to all of us; the old stand-offishness of which I had seen so much formerly, seemed to disappear; and attachment—even affection—between teacher and pupil grew up and became the ruling principle. This is not a thing now to be noted as exceptional, but is to be found everywhere; and it is one of the developments of our work which, in my long experience in it, I look upon with the greatest of pleasure. To see how close is now the tie between deaf pupil and teacher, and to recognize the intensity of the desire on the part of the latter to benefit his charge, cannot but be gratifying to us all.

One of the first things I did on entering on office was to organize a fire-drill, in which the children were trained to do such things, as would insure their safety, in case of an outbreak. This measure, I afterwards introduced into the Old Kent Road school, when I was put in charge of it. One night, the arrangements there were tested, without any previous warning, by the Committee, after all the children had gone to bed. They proved quite satisfactory; and this trial seemed to show that, in the case of an emergency, which happily never occurred, there was every hope that they would prove efficient. Only once, in my time, at Margate, was it necessary to rouse the children, in the night, on account of fire. A large timber yard, at a distance of several hundred yards was on fire, and sparks and ignited splinters from it, fell on the ground, and rained against the windows of the Institution. But the children, interested spectators of it in their dormitories, showed no alarm at all, and when the fire subsided, went quietly to bed again.

My recommendation to grant prizes to the children in recognition of progress and good conduct was adopted; and at the end of the term, the first distribution took place, on this occasion in the presence of the Committee only. After the distribution had taken place in the school-room, a stage, with appropriate scenery, was quickly erected and the girls gave, in pantomime, the story of "Red Riding Hood," and the boys that of Dick Whittington, with other acted representations.

A MAY-DAY PARTY

The Group Is Composed of Pupils at the Margate School for the Deaf.

The little people, all the juniors of the Institution, had taken great pleasure in the preparation for this spectacle; the "actors and actresses" were proud to dress up in the appropriate clothing made by their teachers; and all concerned had worked strenuously to prepare something that might interest their good friends. The verdict of the local press was "The whole of the representations was exceedingly good." I do not know if anything of the kind had ever before been attempted in this country in a school for the deaf, but since, dramatic exhibitions in various schools have not been uncommon. Our own attempts were continued for some years, in a more elaborate form, suitable to the elder children who eventually came under my charge. They were only discontinued when the public Christmas prize distribution ceased.

XVI

THE LONDON SCHOOL BOARD'S WORK

AN important step was taken in the education of the deaf in 1874 by the London School Board. Finding that a number of the deaf escaped the provision made for their education, they took a comprehensive and philanthropic view of their duties as the constituted educational authority of London, and determined to meet their requirements as far as they could. The power given them by the Education Bill enabled them to establish day classes for their benefit, and this they accordingly did, as a supplement to the existing agencies.

These classes, from the beginning, did good work; and, though arrangements at first might be imperfect, and results poor, yet instruction was given for many who otherwise would have been entirely without it.

But the most satisfactory feature in their establishment was the fact that for the first time in the history of our country, the education of the deaf was taken up by a public body, and recognized by it as a part of the general education of the country. Full provision was not yet made, but this recognition was a great step towards this end.

The "centers" of instruction were scattered over the metropolis, each consisting of the few children in their respective neighborhoods who could be got together. Necessarily, under these conditions, graduated instruction could not be insured in each of them, nor such efficiency as was possible in a well-organized Institution. But successive developments, and continuous progress, made possible by a sufficiency of funds for the necessary outlay, have placed the efforts of the public educational body of London among those of the highest, in point of efficiency.

The work of the London School Board was placed under the supervision of the Rev. William Stainer, who became the peripatetic organizer of its classes. Mr. Stainer who, as already mentioned, commenced his work as a teacher of the deaf in the Old Kent Road school, had had long experience as a teacher, and had wonderful skill in communicating with the deaf and dumb by the medium of signing. This art, now entirely discredited and ignored, he used with great and dramatic effect, in his communications to his pupils; and, being, at this time, an ordained clergyman to the deaf, his ministrations to the adults, from his exceptional ability in this respect, gave him great influence with them. The only other person, whom I knew, who approached his standard in pantomimic eloquence was Mr. Alfred Large, whose lucid

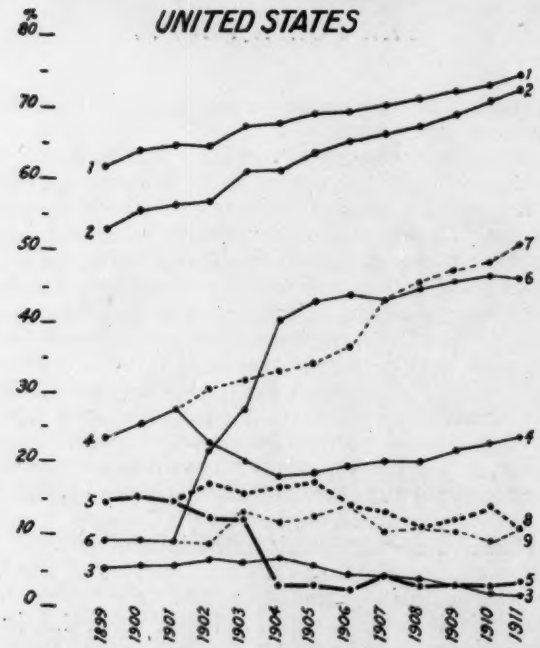
expositions and graceful presentations by signs, I delighted to watch, in the early years of my work.

Mr. Stainer at first strongly favored the small classes, and the day school system generally. But the necessity for graded instruction soon made itself felt; and irregular attendance and other drawbacks hindered progress; so that the desirability of numbers sufficiently large to admit of graded teaching, and of residential homes, for some at least of the pupils, pressed itself on him. With the view of meeting these requirements, he took several houses in different parts of London, and, by the aid of charitable contributions, fitted them up as homes for deaf children during their period of education. It is to be remembered that there was no public provision, as yet, except for pauper children, for anything but elementary education. He admitted the latter class to his homes, as well as those for whom he specially provided, most of whom paid a small sum for the accommodation given. Thus a number of children were brought together, and regular attendance, in their case, ensured. But the pauper chidren, sent by the Country Boards of Guardians to the Homes, increased considerably in numbers, and the cost for their education became a charge on the ratepayers of London; for the maintenance charges paid by the Guardians went to the Homes' fund. This was hardly fair, and it could not be expected that it would continue as a permanent arrangement.

The work of the School Board, organizing and controlling as it did the whole of the arrangements for the elementary education of London, was at first very heavy; and it was natural that in view of this, and knowing little or nothing of this special and peculiar branch of it, they should leave its details in the hands of the expert to whom they had committed the oversight of the work. He seemed thus to be given quite a free hand. And when I, hemmed in by restrictions, and asking with bated breath, and often ineffectually for measures of improvement, inquired of him, with somewhat of envy, how he managed his Committee so well, as to get, apparently, all he wanted, he replied, jocularly, "Why I give them plenty of the dryest of dry bones to gnaw, and do the important and necessary things on my own initiative."

But Mr. Stainer had attempted a task which was beyond his power to accomplish. His own work as Superintendent, together with the undivided responsibility of the several "Homes" which were really Institutions, was more than one man could do with efficiency. And the standards of accommodation required in certified homes was rising rapidly, and soon passed that which he was able to provide, from the resources at his command. The homes he established have therefore passed away, but they nevertheless did their useful part in the development of the work in the metropolis.

At first this work was entirely auxiliary to that of the boarding Institutions, and a number of the children who had had some instruction in the School Board classes passed into them, mostly coming to us at Margate, where they remained until they had completed their term of instruction. But especially after the passing of our special Act in 1893, the classes developed in efficiency and in the numbers of pupils, so that now the educational work of the London County Council for the deaf overshadows that of the Institutions; and there is no single body in this country, nor probably elsewhere, which provides for so many deaf pupils, or endeavors to do more for them.



NUMBER OF PUPILS.

Year	Taught Speech	Speech Used	Not Used†	Taught by Speech			Schoolroom Usage		
				S	SS‡	SSS‖	S	SS‡	SSS‖
	1	2	3	4	5	6	7	8	9
1899	6460	5584	535	2496	1549	975			
1900 *	6884	5969	582	2757	1643	995			
1901	7131	6167	621	3020	1611	1009			
1902	7164	6276	712	2506	1323	2412	3100	1903	938
1903	7561	6793	645	2331	1364	3098	3552	1754	1487
1904	7578	6858	720	2050	305	4503	3715	1854	1289
1905	7994	7373	621	2153	278	4942	3911	2038	1424
1906	8145	7679	466	2279	252	5148	4274	1682	1723
1907	8320	7852	468	2359	393	5100	5067	1521	1264
1908	8451	8010	441	2412	304	5294	5389	1304	1317
1909	8872	8496	376	2631	279	5586	5758	1458	1280
1910	9132	8884	248	2830	290	5764	5998	1733	1153
1911	9402	9180	222	2976	408	5796	6514	1354	1312

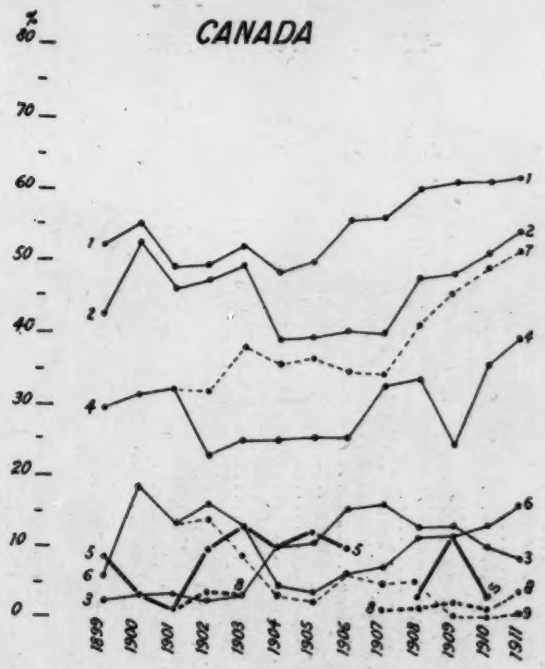
PERCENTAGE OF PUPILS.

1899	61.4	53.1	5.1	23.7	14.7	9.2			
1900	64.0	55.5	5.4	25.7	15.3	9.2			
1901	64.7	56.0	5.6	27.4	14.6	9.2			
1902	64.7	56.7	6.4	22.6	12.0	21.8	30.6	17.2	8.5
1903	67.2	60.3	5.8	20.0	12.1	27.4	31.5	15.6	13.2
1904	67.3	60.9	6.4	18.2	2.7	40.0	33.0	16.5	11.4
1905	69.1	63.7	5.4	18.6	2.4	42.7	33.8	17.6	12.3
1906	69.0	65.0	4.0	19.3	2.1	43.6	36.2	14.2	14.6
1907	70.1	66.1	4.0	19.9	3.3	42.9	42.7	12.8	10.6
1908	70.9	67.2	3.7	20.2	2.6	44.4	45.2	11.0	11.0
1909	72.2	69.1	3.1	21.4	2.3	45.4	46.8	11.9	10.4
1910	73.1	71.1	2.0	22.6	2.3	46.2	48.0	13.9	9.2
1911	74.5	72.7	1.8	23.6	3.2	48.9	51.6	10.7	10.4

* For corrected Table for 1900, see Vol. II, p. 549. † Column 3, "not used," includes all cases where it is not known that speech is used as a means of instruction. ‡ Columns 5 and 8 include unclassified cases taught by SS. ‖ Columns 6 and 9 include unclassified cases taught by SSS.

The diagrams represent graphically the percentage of pupils taught speech in schools for the deaf in the United States and Canada, according to the statistics which have been gathered annually by the REVIEW since 1899. The figures on which the diagrams are based are given in each case immediately under them and the columns are numbered to correspond to the curves upon the diagrams.

1. Total taught Speech. (*Summation of all cases.*)
2. Speech *used* as a means of instruction (*with or without Spelling or Sign-language*).
3. Taught Speech, but Speech *not used* as a means of instruction.



NUMBER OF PUPILS.

Year	Taught Speech	Speech Used	Not Used†	Taught by Speech			Schoolroom Usage		
				S	SS	SSS	S	SS	SSS
	1	2	3	4	5	6	7	8	9
1899	404	330	14	225	64	41			
1900	434	411	23	247	20	144			
1901	384	361	23	251	8	102			
1902	393	377	16	180	75	122	250	20	107
1903	387	367	20	183	93	91	283	21	63
1904	354	282	72	179	75	28	259	—	23
1905	346	273	73	174	76	23	255	—	18
1906	408	296	112	183	69	41	254	—	42
1907	421	301	120	246	—	55	259	8	34
1908	487	386	101	271	22	93	333	13	40
1909	483	381	102	193	94	94	360	16	5
1910	491	412	79	286	23	103	395	10	7
1911	517	451	66	322	—	129	425	22	4

PERCENTAGE OF PUPILS.

1899	52.1	42.6	1.8	29.0	8.3	5.3			
1900	55.4	52.5	2.9	31.5	2.6	18.4			
1901	48.8	45.9	2.9	31.9	1.0	13.0			
1902	49.2	47.2	2.0	22.6	9.4	15.3	31.4	2.6	13.4
1903	51.8	49.1	2.7	24.5	12.4	12.2	37.8	2.8	8.4
1904	48.2	38.4	9.8	24.4	10.2	3.8	35.3	—	3.1
1905	49.5	39.1	10.4	24.9	10.9	3.3	36.5	—	2.6
1906	55.4	40.2	15.2	24 8	9.4	6.0	34.5	—	5.7
1907	55.7	39.8	15.9	32.5	—	7.3	34.2	1.1	4.5
1908	60.0	47.5	12.5	33.4	2.7	11.4	41.0	1.6	4.9
1909	60.8	48.0	12.8	24.3	11.9	11.8	45.4	2.0	0.6
1910	60.9	51.1	9.8	35.5	2.9	12.8	49.0	1.2	0.8
1911	61.5	53.7	7.8	38.3	—	15.4	50.6	2.6	0.5

MEANS OF INSTRUCTION IN SCHOOL AND OUTSIDE.

4. Taught by Speech (*no Spelling, no Sign-language*).
5. Taught by Speech and Spelling (*no Sign-language*).
6. Taught by Speech, Spelling, and Sign-language.

SCHOOLROOM USAGE.

(Without reference to outside instruction.)

7. Taught by Speech (*no Spelling, no Sign-language*).
8. Taught by Speech and Spelling (*no Sign-language*).
9. Taught by Speech, Spelling, and Sign-language.

TABLE I.—SCHOOLS FOR THE DEAF IN THE UNITED STATES.

Arranged alphabetically according to location.

State or Territory	Town	Street or District	Official Name of School	Chief Executive Officer
Alabama	Talladega		Alabama School for the Deaf	Joseph H. Johnson, M. A.
Arkansas	Little Rock		Arkansas Deaf-Mute Institute	Isaac B. Gardner.
California	Berkeley		California Institution for the Deaf and the Blind.	Douglas Keith.
do	Los Angeles		Los Angeles Day-School for the Deaf	Mary E. Bennett.
do	Oakland	Seventeenth and West Sts	Oakland Oral Public School for the Deaf	Emma M. Firth.
do	do	Telegraph Ave., No. 4002	St. Joseph's School for the Deaf	Sister M. Valeria.
do	Sacramento	Twenty-seventh and G Sts	Sacramento Day-School for the Deaf	Alice Jenkins.
do	San Francisco	Golden Gate Av., nr. Pierce St.	San Francisco Day-School for the Deaf	Mrs. Jennie B. Holden.
Colorado	Col. Springs		Colorado School for the Deaf and the Blind	W. K. Argo, M. A., LL. D.
Connecticut	Hartford		American School for the Deaf	Job Williams, M. A., L. H. D.
do	Mystic		Mystic Oral School for the Deaf	Jane and Elleanor B. Worcester.
Dist. Columbia	Washington	Kendall Green	Columbia Institution for the Deaf and Dumb	Percival Hall, M. A.
			Comprising { The Kendall School for the Deaf	Lyman Stead, M. A.
			Comprising { and Gallaudet College	Percival Hall, M. A.
Florida	St. Augustine		Florida School for Blind, Deaf, and Dumb	A. H. Walker, B. A.
Georgia	Cave Spring		Georgia School for the Deaf	Wesley O. Connor.
do	Macon		School for the Deaf	M. M. Stapler, M. D.
Idaho	Gooding		Idaho State School for the Deaf and the Blind.	Paul H. Martin.
Illinois	Aurora	Center School	Aurora Day-School for the Deaf	K. Theo. Riggs.
do	Chicago	Ashland and Wabansia Sts	Burr Public Day-School for the Deaf	Mary T. McCowen.
do	do	Ashland and West 13th Sts	Clarke Public Day-School for the Deaf	
do	do	Calif. Ave., near Wabansia St.	Bernard Moos Public Day-School for the Deaf.	
do	do	Chestnut and N. State Sts	Ogden Public Day-School for the Deaf	
do	do	46th St. and Hermitage Ave.	Seward Public Day-School for the Deaf	
do	do	Harrison, near Halstead St	Dore Public Day-School for the Deaf	
do	do	Ingleside Ave. and 54th St	Kozminski Public Day-School for the Deaf	
do	do	93d and Huston Ave	—— Public Day-School for the Deaf	
do	do	17th bet. Loomis and Laflin Sts.	Jirka Public Day-School for the Deaf	
do	do	67th St. and Stewart Ave	Normal Practice Public Day-School for the Deaf.	
do	do	31st and Loomis Sts	Holden Public Day-School for the Deaf	
do	do	21st Place and California Ave	Hammond Public Day-School for the Deaf	
do	do	Belmont and 40th Aves	Ephpheta School for the Deaf	Annie M. Larkin.
do	do	6550 Yale & 6756 Normal Aves.	McCowen Oral School for Young Deaf Children.	Mrs. Cornelia B. Eggers.
do	Jacksonville		Illinois School for the Deaf	Charles P. Gillett.
do	Rock Island	7th Ave. and 22d St	Rock Island Day-School for the Deaf	Meta C. Wittig.
Indiana	Indianapolis		Indiana State School for the Deaf	Richard Otto Johnson.
Iowa	Council Bluffs		Iowa School for the Deaf	Henry W. Rothert.
Kansas	Olathe		Kansas School for the Deaf	Cyrus E. White, M. A.
Kentucky	Danville		Kentucky School for the Deaf	Augustus Rogers, M. A.

Louisiana	Baton Rouge		Louisiana Inst. for Ed. of Deaf and Dumb	S. M. Robertson, M. A.
do	Chinchuba	St. Tammany Parish	Deaf-Mute Inst. of the Holy Rosary	Sister M. Athanasia.
Maine	Portland	Spring St., Nos. 79 to 85	Maine School for the Deaf	Elizabeth R. Taylor.
Maryland	Baltimore	Hollins St., Nos. 851 to 853	F. Knapp's Institute	Wm. A. Knapp.
do	do	McCulloh St., No. 903	St. Francis Xavier's School for the Deaf	Mother M. Benedict Glancy.
do	Frederick City		Maryland School for the Deaf and Dumb	Chas. W. Ely, M. A., L. H. D.
do	Kensington		Home School for Little Deaf Children	Anna C. Reinhardt.
do	Parkville		Maryland School for the Colored Blind and Deaf	J. F. Bledsoe, M. A., Supt. T. C. Forrester, Res. Prin.
Massachusetts	Beverly	113 Elliot St	New England Industrial School for the Deaf	Louise Upham.
do	Boston	Newbury St., No. 178	Horace Mann School	Ella C. Jordan.
do	Northampton		Clarke School for the Deaf	Caroline A. Yale, LL. D.
do	Randolph	North Main St	Boston School for the Deaf	Rev. Thomas Magennis.
do	West Medford	Woburn St., No. 93	Sarah Fuller Home for Little Deaf Children	Eliza L. Clarke.
Michigan	Bay City		Bay City Day-School for the Deaf	Caroline Shaw.
do	Calumet		Calumet Day-School for the Deaf	Frances Dewar.
do	Detroit	Second and Porter Sts	Detroit Day-School for the Deaf	Gertrude Van Adestine.
do	Flint		Michigan School for the Deaf	F. D. Clarke, M.A., C. E., L. H. D.
do	Grand Rapids		Grand Rapids Day-School for the Deaf	Martha M. Hill.
do	Iron Mountain		Iron Mountain Day-School for the Deaf	Anna Mae Trondson.
do	Ironwood		Ironwood Day-School for the Deaf	Rose D. Kreutzer.
do	Kalamazoo		Kalamazoo Day-School for the Deaf	Jessie Banford.
do	Lake Linden		Lake Linden Day-School for the Deaf	Mary E. Duggan.
do	Manistee		Manistee Day-School for the Deaf	Harriet I. Sanford.
do	Marquette		Marquette Day-School for the Deaf	Maria P. Templeton.
do	North Detroit		Evangelical Lutheran Deaf-Mute Institute	Rev. William Gielow, B. A. Etta E. MacFarlane.
do	Saginaw		Saginaw Day-School for the Deaf	Jessie L. Thew.
do	Sault Ste. Marie		Sault Ste. Marie Day-School for the Deaf	Harryette A. Maxted.
do	Traverse City		Traverse City Day-School for the Deaf	James N. Tate, M. A., LL. D.
Minnesota	Faribault		Minnesota School for the Deaf	A. O. B. Molldrem, M. A.
do	Northfield		St. Olaf College, Dept. for the Deaf	J. R. Dobyns, M. A., LL. D.
Mississippi	Jackson		Mississippi Inst. for Ed. of Deaf and Dumb	Noble B. McKee, M. A., Ph. D.
Missouri	Fulton		Missouri School for the Deaf	Sisters of St. Joseph.
do	St. Louis	901 N. Garrison Ave	Immaculate Conception School for the Deaf	Rev. James H. Cloud, M. A.
do	do	Henrietta St., No. 3435	Gallaudet School	L. E. Milligan, M. A.
Montana	Boulder		Montana School for the Deaf and the Blind	Reuben E. Stewart, M. A.
Nebraska	Omaha		Nebraska School for the Deaf	John P. Walker, M. A.
New Jersey	Trenton		New Jersey School for the Deaf	W. O. Connor, Jr., M. A.
New Mexico	Sante Fe		New Mexico Asylum for the Deaf and Dumb	Mary McGuire
New York	Albany	Pine Hills	Albany Home Sch. for Oral Instr. of the Deaf	N. Frances O'Connor.
do	Brooklyn	113 Buffalo Ave	Branch of St. Joseph's Inst. for the Improved Instruction of Deaf-Mutes	M. Lizzie Donohoe.
do	do	St. Nicholas Av. & Suydam St.	Public School No. 162	Sister Mary Anne Burke.
do	Buffalo	Edward St., No. 125	Le Couteulx St. Mary's Inst. for the Improved Instruction of Deaf-Mutes	Mary A. Kennedy.
do	Fordham	East 188th St., No. 772	Branch of St. Joseph's Inst. for the Improved Instruction of Deaf-Mutes	

TABLE I.—CONTINUED.—SCHOOLS FOR THE DEAF IN THE UNITED STATES.

State or Territory	Town	Street or District	Official Name of School	Chief Executive Officer
New York	Malone		Northern New York Institution for Deaf-Mutes.	Edward C. Rider.
do	New York	225 E. 23d St	Public School No. 47	Carrie W. Kearns.
do	do	904 Lexington Ave	New York Inst. for Im'd Inst'n of Deaf-Mutes.	Harris Taylor.
do	do	1 and 2 Mt. Morris Park, W.	Wright Oral School	John D. Wright, M. A.
do	do	Fort Washington Ave. and W. 163d St	New York Inst. for Instr. of Deaf and Dumb	Enoch Henry Currier, M. A.
do	do	534 W. 187th St	Reno Margulies School for Children with Defective Hearing	Mrs. A. Reno Margulies.
do	Rochester	North St. Paul St., No. 945	Western New York Inst. for Deaf-Mutes	Z. F. Westervelt, LL. D.
do	Rome		Central New York Inst. for Deaf-Mutes	E. A. Gruver, B. A.
do	Westchester		Branch of St. Joseph's Inst. for the Improved Instruction of Deaf-Mutes	Ellen E. Cloak.
North Carolina	Morganton		North Carolina School for the Deaf and Dumb	E. McK. Goodwin, M. A.
do	Raleigh		North Carolina School for the Blind and Deaf	John E. Ray, M. A.
North Dakota	Devils Lake		School for the Deaf and Dumb	Dwight F. Bangs, M. A.
Ohio	Ashtabula	Division Street	Ashtabula Day-School for the Deaf	Katherine Fritz.
do	Cincinnati	Gilbert and Yale Aves	Miss Breckenridge's School	Mary S. Breckinridge.
do	do	321 East Sixth St	Notre Dame School for the Deaf	Sister Mary of the Sacred Heart.
do	do	719 West Sixth St	L. S. Fechheimer Sch. for Promotion of Speech and Hearing	Virginia A. Osborn.
do	Cleveland	2380 E. 55th St	Cleveland Day-School for the Deaf	Grace C. Burton, M. A.
do	Columbus		Ohio Inst. for the Education of Deaf and Dumb.	J. W. Jones, M. A.
do	Conneaut		Conneaut Day-School for the Deaf	Mrs. Rosa Keeler.
do	Dayton	1st and St. Clair Sts	Dayton Day-School for the Deaf	Nannie C. Kennedy.
Oklahoma	Sulphur		Oklahoma School for the Deaf	A. A. Stewart.
do	Taft		Industrial Institute for the Deaf, Blind, and Orphans of the Colored Race	S. Douglas Russell.
Oregon	Portland	East 12th and Ankeny Sts	Portland Day-School for the Deaf	Anna Sullivan.
do	Salem		Oregon School for Deaf-Mutes	Edward S. Tillinghast, B. A.
Pennsylvania	Edgewood P'k		West Penna. Inst. for the Instruction of the Deaf and Dumb	William N. Burt, M. A., Ph. D.
do	Philadelphia	Belmont and Monument Aves.	Home for the Training in Speech of Deaf Children before they are of School Age	Mary S. Garrett.
do	do	Mount Airy	Pennsylvania Institution for the Deaf and Dumb.	A. L. E. Crouter, M. A., LL. D.
do	Pittsburgh	1613 Lowrie St., N. Side	Pittsburgh Catholic School for the Deaf	Sister Mary Cecelia.
do	Scranton		Pennsylvania Oral School for the Deaf	Kate H. Fish.
do	Swarthmore	Chester R'd and Ogden Ave.	Swarthmore School and Kindergarten for the Deaf	Mrs. J. Scott Anderson.
Rhode Island	Providence	520 Hope St	Rhode Island Institute for the Deaf	Edwin G. Hurd, M. A.
South Carolina	Cedar Spring		S. Carolina Inst. for the Education of the Deaf and the Blind	Newton F. Walker.
South Dakota	Sioux Falls		South Dakota School for Deaf-Mutes	Howard W. Simpson.
Tennessee	Knoxville		Tennessee Deaf and Dumb School	Thomas L. Moses.

Texas	Austin		Deaf, Dumb and Blind Inst. for Colored Youth	H. S. Thompson, M. A.
do	do		Texas Deaf and Dumb Asylum	S. J. Thomas.
Utah	Ogden		Utah State School for the Deaf and the Blind	Frank M. Driggs.
Virginia	Newport News		School for Colored Deaf and Blind Children	William C. Ritter.
do	Staunton		Virginia School for the Deaf and the Blind	William A. Bowles.
Washington	Seattle	20th Ave. and Thomas St.	Seattle Day-School for the Deaf	M. Ina Smith.
do	Tacoma	St. Helens Ave. and 54th St.	Tacoma Day-School for the Deaf	Sara B. Sorenson.
do	Vancouver		Washington State School for Deaf and Blind	Thomas P. Clarke.
West Virginia	Romney		West Virginia School for Deaf and Blind	R. Cary Montague.
Wisconsin	Antigo		Antigo Day-School for the Deaf	Katharine C. Grimes.
do	Appleton	Sixth Ward Building	Appleton Day-School for the Deaf	Hannah I. Gardner.
do	Ashland	Seventh Ave. and Second St.	Ashland Day-School for the Deaf	Margaret Clowry.
do	Black R'r F'lls	High School Building	Black River Falls School for the Deaf	Tillie Walden.
do	Bloomington		Bloomington Day-School for the Deaf	Etta R. Gault.
do	Delavan		Wisconsin State School for the Deaf	E. W. Walker.
do	Eau Claire	High School Building	Eau Claire Day-School for the Deaf	Jennie C. Smith.
do	Fond du Lac	Grant School	Fond du Lac Day-School for the Deaf	Agnes E. Sullivan.
do	Green Bay	Ward School	Green Bay Day-School for the Deaf	M. Stella Flatley.
do	La Crosse	Sixth and Vine Sts.	La Crosse Day-School for the Deaf	Henrietta E. Allen.
do	Madison	Doty School	Madison Day-School for the Deaf	Matild Flatley.
do	Marinette	High School Building	Marinette Day-School for the Deaf	Katherine F. Reed.
do	Milwaukee	Seventh and Prairie Sts.	Milwaukee School for the Deaf	Frances Wettstein.
do	New London		New London Day-School for the Deaf	Carrie H. Archibald.
do	Oshkosh	Dale School	Oshkosh School for the Deaf	Anna Nugent.
do	Platteville		Platteville Day-School for the Deaf	Matie B. Gamble.
do	Racine	McMynn School	Racine Day-School for the Deaf	Bessie M. Everhard.
do	Rice Lake		Rice Lake Day-School for the Deaf	Katharine Fulton.
do	St. Francis		St. John's Institute for Deaf-Mutes	Rev. M. M. Gerend.
do	Sheboygan	Second Ward School	Sheboygan Day-School for the Deaf	Julia L. Dean.
do	Stevens Point		Stevens Point Day-School for the Deaf	E. Ellen MacNees.
do	Wausau		Wausau Day-School for the Deaf	Margaret Hurley.
do	West Superior	Howe School	Superior Day-School for the Deaf	Lowena A. Dignin.

SCHOOLS FOR THE DEAF IN CANADA.

Manitoba	Winnipeg		Institution for the Deaf and Dumb	Howard J. McDermid, M. D.
New Brunsw'k.	St. John	Lancaster Heights	New Brunswick School for the Deaf	Jos. Keating.
Nova Scotia	Halifax		Halifax Institution for the Deaf and Dumb	James Fearon.
Ontario	Belleville		Ontario Institution for the Deaf and Dumb	Chas. B. Coughlin, M. D.
Quebec	Montreal	St. Dennis St., No. 595	Catholic Female Deaf and Dumb Institution	Sister Marie Rose.
do	do	Rue St. Dominique, No. 1259, North Montreal	Catholic Male Deaf-Mute Inst. for the Province of Quebec	Rev. J. M. Cadieux, C. S. V.
do	do	Notre Dame de Grace St.	Mackay Inst. for Prot. Deaf-Mutes and Blind	Mrs. Harriet E. Ashcroft.

Schools for the Deaf in the United States — Arranged alphabetically according to location		Number of Pupils			Taught Speech			Speech Used as a Means of Instruction						
		Total — Query 9	Taught Speech	Speech Not Taught — Query 8	Speech Used as a means of instruction	Speech Not Used as a means of instruction — Query 7	Not stated whether used or not	S in Schoolroom S outside — Query 1	S in Schoolroom SS outside — Query 2	S in Schoolroom SSS outside — Query 3	SS in Schoolroom SS outside — Query 4	SS in Schoolroom SSS outside — Query 5	SSS in Schoolroom SSS outside — Query 6	Unclassified
Ala.	Talladega School	165	84	81	84	—	—	—		84	—	—	—	—
Ark.	Little Rock School	263	108	155	108	—	—	—	—	108	—	—	—	—
Cal.	Berkeley School (1)	164	119	45	83	36	—	—	—	31	—	25	27	—
"	Los Angeles School	35	35	—	35	—	—	35	—	—	—	—	—	—
"	Oakland, 17th & West St. School	9	9	—	9	—	—	9	—	—	—	—	—	—
"	" Telegraph Ave. School	28	28	—	28	—	—	—	—	—	—	—	28	—
"	Sacramento School	11	11	—	11	—	—	11	—	—	—	—	—	—
"	San Francisco School	26	26	—	26	—	—	26	—	—	—	—	—	—
Col.	Colorado Springs School	150	80	70	80	—	—	—	—	67	—	—	13	—
Conn.	Hartford School (2)	159	130	29	130	—	—	—	—	81	—	—	49	—
"	Mystic School	58	58	—	58	—	—	58	—	—	—	—	—	—
D. C.	Washington, Gallaudet College (3)	86	43	43	—	—	43	—	—	—	—	—	—	—
"	" Kendall School (4)	45	43	2	23	—	20	—	—	—	—	—	—	23
Fla.	St. Augustine School	66	41	25	41	—	—	—	—	41	—	—	—	—
Ga.	Cave Spring School (5)	156	100	56	100	—	—	—	—	—	—	—	100	—
"	Macon School (6)	6	6	—	6	—	—	6	—	—	—	—	—	—
Idaho	Gooding School (7)	40	40	—	32	8	—	—	28	—	4	—	—	—
Ill.	Aurora School	8	8	—	8	—	—	8	—	—	—	—	—	—
"	Chicago Schools: (8)													
	Ashland & Wabansia Sts	36	36	—	36	—	—	36	—	—	—	—	—	—
	Ashland & W. 13th Sts	10	10	—	10	—	—	10	—	—	—	—	—	—
	California Ave. School	32	32	—	32	—	—	32	—	—	—	—	—	—
	Chestnut St. School	23	23	—	23	—	—	23	—	—	—	—	—	—
	46th St. School	7	7	—	7	—	—	7	—	—	—	—	—	—
	Harrison St. School	16	16	—	16	—	—	16	—	—	—	—	—	—
	Ingleside Ave. School	10	10	—	10	—	—	10	—	—	—	—	—	—
	93d and Huston Ave. School	8	8	—	8	—	—	8	—	—	—	—	—	—
	17th bet. Loomis and Laflin	7	7	—	7	—	—	7	—	—	—	—	—	—
	67th St. & Stewart Ave.	66	66	—	66	—	—	66	—	—	—	—	—	—
	31st & Loomis Sts.	16	16	—	16	—	—	16	—	—	—	—	—	—
	21st Pl. & California Ave.	9	9	—	9	—	—	9	—	—	—	—	—	—
	12 Public Day Schools	240	240	—	240	—	—	240	—	—	—	—	—	—
	48 & Belmont Aves. School	85	85	—	85	—	—	—	—	49	—	36	—	—
	Yale Ave. School	6	6	—	6	—	—	6	—	—	—	—	—	—

"	Jacksonville School	386	320	66	320	—	—	—	—	—	—	—	120	200	—
"	Rock Island School	8	8	—	8	—	—	8	—	—	—	—	—	—	—
Ind.	Indianapolis School (9)	312	197	115	197	—	—	—	—	197	—	—	—	—	—
Iowa	Council Bluffs School	222	119	103	119	—	—	—	—	119	—	—	—	—	—
Kan.	Olathe School	236	121	115	121	—	—	—	—	51	—	13	57	—	—
Ky.	Danville School	343	164	179	164	—	—	—	—	164	—	14	—	—	—
La.	Baton Rouge School	135	45	90	30	15	—	—	—	—	—	—	30	—	—
"	Chinchuba School	33	26	7	18	8	—	—	—	—	—	—	18	—	—
Me.	Portland School (10)	112	100	12	100	—	—	—	—	—	—	—	100	—	—
Md.	Baltimore, Hollins St. School (11)	25	25	—	25	—	—	25	—	—	—	—	—	—	—
"	" McCulloh St. School	30	30	—	30	—	—	—	—	—	—	24	6	—	—
"	Frederick City School (12)	104	59	45	59	—	—	—	59	—	—	—	—	—	—
"	Kensington School	11	11	—	11	—	—	11	—	—	—	—	—	—	—
"	Parkville School	51	26	25	26	—	—	—	—	—	—	24	2	—	—
Mass.	Beverly School (13)	24	22	2	22	—	—	22	—	—	—	—	—	—	—
"	Boston, Newbury St. School	144	144	—	144	—	—	144	—	—	—	—	—	—	—
"	" Randolph School	143	143	—	143	—	—	143	—	—	—	—	—	—	—
"	Northampton School	143	143	—	143	—	—	143	—	—	—	—	—	—	—
"	W. Medford School	10	10	—	10	—	—	10	—	—	—	—	—	—	—
Mich.	Bay City School	7	7	—	7	—	—	7	—	—	—	—	—	—	—
"	Calumet School	11	11	—	11	—	—	11	—	—	—	—	—	—	—
"	Detroit School	68	68	—	68	—	—	68	—	—	—	—	—	—	—
"	Flint School (14)	280	195	85	195	—	—	—	—	—	—	—	—	—	195
"	Grand Rapids School	29	29	—	29	—	—	29	—	—	—	—	—	—	—
"	Iron Mountain School	6	6	—	6	—	—	6	—	—	—	—	—	—	—
"	Ironwood School	7	7	—	7	—	—	7	—	—	—	—	—	—	—
"	Kalamazoo School	5	5	—	5	—	—	5	—	—	—	—	—	—	—
"	Lake Linden School	3	3	—	3	—	—	3	—	—	—	—	—	—	—
"	Manistee School	8	8	—	8	—	—	8	—	—	—	—	—	—	—
"	Marquette School	8	8	—	8	—	—	8	—	—	—	—	—	—	—
"	North Detroit School	27	21	6	21	—	—	—	—	7	10	—	4	—	—
"	Saginaw School	9	9	—	9	—	—	9	—	—	—	—	—	—	—
"	Sault Ste. Marie School	6	6	—	6	—	—	6	—	—	—	—	—	—	—
"	Traverse City School	6	6	—	6	—	—	6	—	—	—	—	—	—	—
Minn.	Faribault School	278	159	119	159	—	—	—	—	159	—	—	—	—	—
"	Northfield School	8	3	5	3	—	—	1	—	—	—	—	2	—	—
Miss.	Jackson School (15)	109	30	79	19	11	—	—	—	—	—	—	—	—	19
Mo.	Fulton School	308	133	175	133	—	—	—	—	133	—	—	—	—	—
"	St. Louis, Garrison Av. Sch. (16)	71	60	11	50	10	—	—	—	—	—	—	—	—	50
"	" Henrietta St. School	57	53	4	53	—	—	4	—	—	—	—	49	—	—
Mont.	Boulder School	46	38	8	38	—	—	—	—	20	—	18	—	—	—
Neb.	Omaha School	185	80	105	80	—	—	—	—	34	—	38	8	—	—
N. J.	Trenton School	162	144	18	144	—	—	—	—	—	—	—	144	—	—
N. M.	Santa Fé School	41	33	8	33	—	—	—	—	—	—	33	—	—	—
N. Y.	Albany School	50	50	—	50	—	—	50	—	—	—	—	—	—	—
"	Brooklyn, Buffalo Ave. School	104	104	—	104	—	—	—	—	104	—	—	—	—	—
"	" St. Nicholas Ave. Sch.	11	11	—	11	—	—	11	—	—	—	—	—	—	—
"	Buffalo School	175	160	15	160	—	—	—	—	25	—	135	—	—	—

SCHOOLS FOR THE DEAF IN THE UNITED STATES Arranged alphabetically according to location		NUMBER OF PUPILS			TAUGHT SPEECH			SPEECH USED AS A MEANS OF INSTRUCTION						
		Total Query 9	Taught Speech	Speech Not Taught Query 8	Speech USED as a means of instruction	Speech Not USED as a means of instruction Query 7	Not stated whether used or not	S in Schoolroom S outside Query 1	S in Schoolroom SS outside Query 2	S in Schoolroom SSS outside Query 3	SS in Schoolroom SS outside Query 4	SS in Schoolroom SSS outside Query 5	SSS in Schoolroom SSS outside Query 6	Unclassified.
N. Y.	Fordham School	138	138	—	138	—	—	—	—	—	—	138	—	—
"	Malone School	88	88	—	88	—	—	30	27	—	31	—	—	—
"	N. Y., East 23d St. School	205	205	—	205	—	—	205	—	—	—	—	—	—
"	" Lexington Ave. School	227	227	—	227	—	—	227	—	—	—	—	—	—
"	" Mt. Morris Park School	26	26	—	26	—	—	26	—	—	—	—	—	—
"	" W. 163d St. School (17)	489	489	—	489	—	—	—	—	264	—	225	—	—
"	" West 187th St. School	18	18	—	18	—	—	18	—	—	—	—	—	—
"	Rochester School	177	177	—	177	—	—	—	—	—	177	—	—	—
"	Rome School	93	84	9	72	12	—	—	72	—	—	—	—	—
"	Westchester School	255	255	—	255	—	—	—	—	—	—	255	—	—
N. C.	Morganton School	237	180	57	180	—	—	—	—	180	—	—	—	—
"	Raleigh School	88	43	45	43	—	—	—	—	43	—	—	—	—
N. D.	Devils Lake School	80	58	22	52	6	—	—	—	18	—	7	27	—
Ohio	Ashtabula School	6	6	—	6	—	—	6	—	—	—	—	—	—
"	Cin'nati, Gilbert & Yale Aves.	2	2	—	2	—	—	2	—	—	—	—	—	—
"	" E. 6th St. School (18)	10	10	—	10	—	—	—	—	—	—	—	10	—
"	" W. 6th St. School	43	43	—	43	—	—	43	—	—	—	—	—	—
"	Cleveland School (19)	89	89	—	89	—	—	86	—	—	—	—	3	—
"	Columbus School (20)	451	245	206	239	6	—	—	—	239	—	—	—	—
"	Conneaut School	6	6	—	6	—	—	6	—	—	—	—	—	—
"	Dayton School	6	6	—	6	—	—	6	—	—	—	—	—	—
Okla.	Sulphur School	236	90	146	90	—	—	—	—	90	—	—	—	—
"	Taft School (21)	11	—	11	—	—	—	—	—	—	—	—	—	—
Ore.	Portland School	16	16	—	16	—	—	16	—	—	—	—	—	—
"	Salem School (22)	77	42	35	39	3	—	—	—	19	—	20	—	—
Penn.	Edgewood Park School	231	210	21	210	—	—	—	—	210	—	—	—	—
"	Phila., Belmont Ave. School	65	65	—	65	—	—	65	—	—	—	—	—	—
"	" Mt. Airy School	532	532	—	532	—	—	532	—	—	—	—	—	—
"	Pittsburgh School	38	38	—	38	—	—	—	—	—	—	—	38	—
"	Scranton School (23)	100	100	—	100	—	—	100	—	—	—	—	—	—
"	Swarthmore School	7	7	—	7	—	—	7	—	—	—	—	—	—
R. I.	Providence School	76	76	—	76	—	—	76	—	—	—	—	—	—
S. C.	Cedar Spring School	122	70	52	70	—	—	—	—	70	—	—	—	—
S. D.	Sioux Falls School	76	36	40	34	2	—	—	—	—	—	—	34	—
Tenn.	Knoxville School	250	82	168	82	—	—	—	—	82	—	—	—	—
Tex.	Austin School (for colored)	60	4	56	4	—	—	—	—	—	—	—	4	—
"	Austin School (for whites)	425	251	174	251	—	—	—	—	251	—	—	—	—
Utah	Ogden School	95	87	8	82	5	—	—	—	68	—	14	—	—
Va.	Newport News School	32	—	32	—	—	—	—	—	—	—	—	—	—
"										117				

		95	87	8	82	5	—	—	—	68	—	14	—	—
Va.	Newport News School	32	—	32	—	—	—	—	—	—	—	—	—	—
"	Staunton School	167	117	50	117	—	—	—	—	117	—	—	—	—
Wash.	Seattle School	26	26	—	26	—	—	26	—	—	—	—	—	—
"	Tacoma School (24)	11	11	—	11	—	—	11	—	—	—	—	—	—
"	Vancouver School (25)	108	83	25	76	7	—	—	—	45	—	7	24	—
W. V.	Romney School	136	82	54	52	30	—	—	—	52	—	—	—	—
Wis.	Antigo School (26)	14	14	—	14	—	—	14	—	—	—	—	—	—
"	Appleton School	7	7	—	7	—	—	7	—	—	—	—	—	—
"	Ashland School	13	13	—	13	—	—	13	—	—	—	—	—	—
"	Black River Falls School	11	11	—	11	—	—	11	—	—	—	—	—	—
"	Bloomington School	6	6	—	6	—	—	6	—	—	—	—	—	—
"	Delavan School	200	130	70	130	—	—	—	—	130	—	—	—	—
"	Eau Claire School	32	32	—	32	—	—	32	—	—	—	—	—	—
"	Fond du Lac School	12	12	—	12	—	—	12	—	—	—	—	—	—
"	Green Bay School	21	21	—	21	—	—	21	—	—	—	—	—	—
"	La Crosse School	7	7	—	7	—	—	7	—	—	—	—	—	—
"	Madison School	12	12	—	12	—	—	12	—	—	—	—	—	—
"	Marinette School	8	8	—	8	—	—	8	—	—	—	—	—	—
"	Milwaukee School	103	103	—	103	—	—	103	—	—	—	—	—	—
"	New London School	9	9	—	9	—	—	9	—	—	—	—	—	—
"	Oshkosh School	13	13	—	13	—	—	13	—	—	—	—	—	—
"	Platteville School	14	14	—	14	—	—	14	—	—	—	—	—	—
"	Racine School	8	8	—	8	—	—	8	—	—	—	—	—	—
"	Rice Lake School	7	7	—	7	—	—	7	—	—	—	—	—	—
"	St. Francis School	94	61	33	61	—	—	13	—	—	—	—	48	—
"	Sheboygan School	9	9	—	9	—	—	9	—	—	—	—	—	—
"	Stevens Point School	11	11	—	11	—	—	11	—	—	—	—	—	—
"	Wausau School	7	7	—	7	—	—	7	—	—	—	—	—	—
"	West Superior School	7	7	—	7	—	—	7	—	—	—	—	—	—
Number of pupils in 147 schools		12519	9402	3217	9180	159	63	2976	186	3352	222	1132	1025	287
Percentage " " "		100.0	74.5	25.5	72.7	1.3	0.5	23.6	1.5	26.5	1.7	9.0	8.1	2.3
	CANADA													
Man.	Winnipeg School	103	30	73	4	26	—	—	—	—	—	—	4	—
N. B.	St. John School	38	7	31	—	7	—	—	—	—	—	—	—	—
N. S.	Halifax School	91	74	17	74	—	—	74	—	—	—	—	—	—
Ont.	Belleville School	247	103	144	103	—	—	—	—	103	—	—	—	—
P. Q.	Montreal:													
	St. Denis St. School	148	140	8	140	—	—	130	—	—	—	10	—	—
	Rue St. Dominique School	139	94	45	94	—	—	94	—	—	—	—	—	—
	Notre Dame de Grace School	74	69	5	36	33	—	24	—	—	—	12	—	—
Number of pupils in 7 schools		840	517	323	451	66	—	322	—	103	—	22	4	—
Percentage " " "		100.0	61.5	38.5	53.7	7.8	—	38.3	—	12.3	—	2.6	0.5	—

For General Summary of the above, see Tables III, IV, and V. (1) to (26), see Notes, pp. 115-116.

TABLE III.—SPEECH-TEACHING IN AMERICAN SCHOOLS FOR THE DEAF. MARCH 1, 1911.

General Summary			United States		Canada	
			No. of Pupils	Per cent of Pupils	No. of Pupils	Per cent of Pupils
Total Pupils			12619	100.0	840	100.0
Taught Speech			9402	74.5	517	61.5
Not taught Speech			3217	25.5	323	38.5
Taught Speech:						
Speech used as means of instruction			9180	72.7	451	53.7
Speech not used as means of instruction			159	1.3	66	7.8
Not stated (whether used or not)			63	0.5	—	—
Speech used as means of instruction:						
In Schoolroom—	Outside—					
S	S		2976	23.6	322	38.3
S	SS		186	1.5	—	—
S	SSS		3352	26.5	103	12.3
SS	SS		222	1.7	—	—
SS	SSS		1132	9.0	22	2.6
SSS	SSS		1025	8.1	4	0.5
Unclassified	SSS		287	2.3	—	—

TABLE IV.—SPEECH-TEACHING IN AMERICAN SCHOOLS FOR THE DEAF. MARCH 1, 1911.

Means of Instruction in School and Outside. (See diagrams, pp. 104 and 105)				United States		Canada	
				No. of Pupils	Per cent	No. of Pupils	Per cent
Diagrams	Schoolroom	Outside					
	S	S					
Line 4			Total S	2976	23.6	322	38.3
	S	SS					
	SS	SS					
Line 5			Total SS	408	3.2	—	—
	S	SSS					
	SS	SSS					
	SSS	SSS					
	Unclassified	SSS					
Line 6			Total SSS	5796	45.9	129	15.4

Symbols employed in above Tables:
S Speech (*no Spelling, no Sign-language*).
SS Speech and Spelling (*no Sign-language*).
SSS Speech, Spelling, and Sign-language.

TABLE V.—SPEECH-TEACHING IN AMERICAN SCHOOLS FOR THE DEAF. MARCH 1, 1911.

SCHOOLROOM USAGE without reference to outside instruction (See diagrams, pp. 104 and 105)			United States		Canada	
			No. of Pupils	Per cent	No. of Pupils	Per cent
Diagrams	Schoolroom	Outside				
	S	S				
	S	SS				
	S	SSS				
Line 7		Total S.....	6514	51.6	425	50.6
	SS	SS				
	SS	SSS				
Line 8		Total SS....	1354	10.7	22	2.6
	SSS	SSS				
	Unclassified	SSS				
Line 9		Total SSS....	1312	10.4	4	0.5

Symbols employed in above Table:
S Speech (*no Spelling, no Sign-language*).
SS Speech and Spelling (*no Sign-language*).
SSS Speech, Spelling, and Sign-language.

The above statistics (Tables II, III, IV, and V) have been compiled from replies to the following queries:

Query 1. SPEECH (without spelling or sign-language) used both in the school-room and outside, with.....pupils.

Query 2. SPEECH (without spelling or sign-language) used in the school-room; but SPELLING (without sign-language) also used outside in chapel exercises, work-shop instruction, etc., with.....pupils.

Query 3. SPEECH (without spelling or sign-language) used in the school-room; but SPELLING and SIGN-LANGUAGE also used outside in chapel exercises, work-shop instruction, etc., with.....pupils.

Query 4. SPEECH and SPELLING (without sign-language) used both in the school-room and outside, with.....pupils.

Query 5. SPEECH and SPELLING (without sign-language) used in the school-room; but SIGN-LANGUAGE also used outside in chapel exercises, work-shop instruction, etc., with.....pupils.

Query 6. SPEECH, SPELLING, and SIGN-LANGUAGE used both in the school-room and outside, with.....pupils.

Query 7. Number taught ARTICULATION without speech being used as a means of instruction (their general education being carried on by silent methods) .....pupils.

Query 8. Number taught by silent methods alone, without being taught articulation or speech.....pupils.

Query 9. Number of pupils in this school March 1, 1911: Total, ...pupils.

NOTES.

(1) Berkeley School (Cal.): Mr. Douglas Keith, the Superintendent, writes with reference to the 45 pupils not taught speech: "Too many. I promise to make a better showing next year."

(2) Hartford School (Conn.): Dr. Job Williams, the Principal, writes: "This is as near as I can get the facts, but I will not swear to their accuracy." He gives figures under the numbered queries as follows: 1, 0; 2, 0; 3, 81; 4, 0; 5, 0; 6, 49; 7, 44; 8, 29; 9, 156.

(3) and (4) Washington, Gallaudet College and Kendall School (D. C.): Mr. Percival

Hall, the President, writes: "We have, already, carefully prepared statistics for the American Annals of the Deaf, which were published in the January number of that magazine. We feel that this is the only official statement that we care to make in regard to our work. In both the College and Kendall School we do a great deal of oral work and articulation teaching, and visitors, at all times, are welcome to see just what we are doing. We prefer the classification approved by the conference of superintendents and principals and used in the American Annals, and would refer you to the statistics published last January, if you care to make use of them." Statistics used compiled from the statistics of the American Annals for January, 1911.

(5) Cave Spring School (Ga.): Mr. W. O. Connor, the Principal, reports 121 white and 35 negro pupils in the two departments; number of white pupils taught speech, 100; number of white pupils not taught speech, 21; none of the negroes are reported as taught speech.

(6) Macon School (Ga.): Dr. M. M. Stapler, the Principal, writes: "Treatment of the ear daily has established hearing for words in 3 of the 6 pupils."

(7) Gooding School (Idaho): Mr. Paul Martin, the Superintendent, reports his school under the numbered queries as follows: 1, 0; 2, 28; 3, 0; 4, 12; 5, 0; 6, 0; 7, 8; 8, 0; 9, 40.

(8) Chicago Schools (Ill.): The 12 schools first named constitute the Chicago system of Day-Schools. They report a total enrollment on March 1, 1911, of 240 pupils.

(9) Indianapolis School (Ind.): Mr. Richard O. Johnson, the Superintendent, adds to query 3 the words: "including the kindergarten (54)."

(10) Portland School (Me.): Miss Elizabeth R. Taylor, the Principal, reports the number of pupils taught speech, 100; number not taught speech, 12; total pupils in school, 112. The pupils taught speech not being entered under the numbered queries, last year's distribution is followed.

(11) Baltimore, Hollins St., School (Md.): No information received. Statistics from THE VOLTA REVIEW of June, 1910.

(12) Frederick School (Md.): Dr. C. W. Ely, the Principal, reports his school under the numbered queries as follows: 1, 59; 2, 59; 3, 0; 4, 0; 5, 0; 6, 0; 7, 0; 8, 45; 9, 104.

(13) Beverly School (Mass.): Miss Louise Upham, the Principal, writes: "I do not wish to give a wrong impression in the enclosed report. With the exception of two, all pupils have been placed in oral classes. We—teachers and supervisors—speak or write to pupils outside of school, but the pupils themselves spell and sign. They are talking more, however."

(14) Flint School (Mich.): No information received. Statistics used compiled from the statistics of the American Annals for January, 1911.

(15) Jackson School (Miss.): No information received. Statistics used compiled from the American Annals for January, 1909.

(16) St. Louis, Garrison Ave., School (Mo.): The figures of this school are reported under the numbered queries as follows: 1, 20; 2, 51; 3, 30; 4, 45; 5, 35; 6, 35; 7, 10; 8, 12; 9, 71.

(17) New York, West 163d St., School (N. Y.): Mr. Enoch Henry Currier, the Principal, reports his school under the numbered queries as follows: 1, 0; 2, 0; 3, 264; 4, 0; 5, 225; 6, 0; 7, 225; 8, 0; 9, 489. Last year's distribution as to pupils entered under 5 and 7 followed.

(18) Cincinnati, East 6th St., School (O.): The following note accompanies the report: "All school exercises are taught by speech and spelling. For explanation in religious instruction, signs are used when necessary."

(19) Cleveland School (O.): The 3 pupils under query 6 are reported as deaf-blind.

(20) Columbus School (O.): Mr. J. W. Jones, the Superintendent, writes: "If the 6 who take articulation from the High Class are counted as 'taught speech,' the number will be 245."

(21) Taft School (Okla.): Mr. S. Douglas Russell, the Superintendent, reporting upon the "number of pupils taught speech," writes, "None yet."

(22) Salem School (Ore.): Statistics from THE VOLTA REVIEW for June, 1910. A report received too late for use in the tables, gives the following figures under the numbered queries: 1, 0; 2, 0; 3, 31; 4, 0; 5, 12; 6, 0; 7, 0; 8, 36; 9, 79.

(23) Scranton School (Pa.): Miss Kate H. Fish, the Principal, writes: "Our pupils make signs outside the school-room; we discourage this, but do not forbid it."

(24) Tacoma School (Wash.): Mrs. Sara B. Sorenson, the Principal, writes: "School started September 6, 1909."

(25) Vancouver School (Wash.): No report received. Statistics from THE ASSOCIATION REVIEW of June, 1909.

(26) Antigo School (Wis.): Statistics from THE VOLTA REVIEW for June, 1910. A report received too late for use in the tables, gives the attendance figures as 15, all entered under query 1.

POSITIONS FOR TEACHERS OF THE DEAF

Chicago Deaf-Schools' Examinations

The Chicago Board of Education will hold examinations for teachers of the deaf in the public-school systems of that city on June 26 and 27.

Candidates for certificates of teachers of the deaf must present credentials showing the following:

(*a*) An education equivalent to that indicated by the public high school course of Chicago; and

(*b*) A normal course in an accredited training school for teachers of the deaf.

They will be examined in the subjects named below and must attain a general average of seventy-five per cent, with no subject below fifty per cent.

1. Theory and practice of teaching the deaf, including:
   (*a*) Educational Principles; the history and literature of the deaf; principles and methods of instruction of deaf children.
   (*b*) Practical demonstration.
2. English.
3. History.
4. Geography.
5. Mathematics.
6. Science.
7. Drawing; or Vocal Music; or Physical Education.

NOTE—The papers in subjects 2-7 inclusive shall be the same as those given to elementary teachers.

The scale of salaries is as follows:

Lower Group, first year, $750; seventh and subsequent years, $1,050.
Upper Group, first year, $1,100; third and subsequent years, $1,200.

Full information may be obtained from A. C. Rishel, Examiner, Board of Education, Chicago, Ill.

Conference of Southern School Heads

A conference of principals and superintendents of Southern schools for the deaf was held in Atlanta on the 6th of April, for the purpose of devising ways and means of securing better teachers for the Southern schools. The conference was attended by Messrs. E. McK. Goodwin, of Morganton, N. C., who arranged for its convocation; N. F. Walker, of Cedar Spring, S. C.; W. O. Connor, of Cave Spring, Ga.; J. H. Johnson, of Talladega, Ala.; T. L. Moses, of Knoxville, Tenn.; Augustus Rogers, of Danville, Ky., and A. H. Walker, of St. Augustine, Fla. Mr. W. F. Crusselle, teacher of a Bible class of the deaf at Atlanta, also attended.

The following resolution, copied from "The Atlanta Constitution" was unanimously adopted:

"Whereas, many schools for the deaf have experienced much difficulty in securing properly trained teachers to meet the demands of the various departments; therefore be it

"*Resolved*, That we, the superintendents and principals of a number of schools for the deaf in the Southern States, in conference, do hereby advocate and urge the inauguration of plans and arrangements whereby an adequate number of well-qualified men and women may be properly trained to meet the needs of the schools for the deaf.

"*Be it further resolved*, That as this condition of scarcity of trained teachers exists in other parts of the country, it is the sense of this conference that a meeting of the Conference of Superintendents and Principals of American Schools for the Deaf be called by the executive committee of the conference to meet in Delavan, Wis., at or before the meeting of the Convention of American Instructors of the Deaf, which will be held at the above-named place, July 6-13, 1911.

"A. H. WALKER,
"J. H. JOHNSON,
"W. O. CONNOR,
"*Committee.*"

It is estimated that the South alone needs twenty-five new teachers every year. About ten teachers, whose tuition, amounting to $150 each, is paid by the American Association to Promote the Teaching of Speech to the Deaf, are trained annually at the Clarke School, Northampton, Mass.; a smaller number are trained at Gallaudet College, Washington, D.C., and a few other schools train still smaller numbers. But according to Mr. Goodwin, all these new additions to the profession are not half enough to meet the demands.

Teachers' Information Bureau

Teachers wishing positions and superintendents wishing teachers may avail themselves of the office of the General Secretary of the American Association to Promote the Teaching of Speech to the Deaf, so far as it may be of service to them. The General Secretary aims to keep a list of teachers, and one of superintendents, belonging to the above classes, ready for use by any person who may write for them. Address F. W. Booth, General Secretary, Volta Bureau, Washington, D. C.

HOW TO PRACTISE LIP-READING

Conducted by EDWARD B. NITCHIE, B. A., Principal, The New York School for the Hard-of-Hearing

A MONTHLY DEPARTMENT OF HOME-INSTRUCTION AND OF SUGGESTIONS TO THE TEACHER OF THE ART

VI

WORD PRACTISE

To practise words simply for the sake of the words—that is, to try to memorize them as one would a vocabulary—is the least helpful form of word-study; for the analogy between the study of lip-reading and the study of a foreign language does not hold here. Certainly some good can be obtained from such practise, but it is not possible so to memorize word formations that the eye will infallibly recognize them whenever seen. Moreover, there is a better way of studying word-formations than in the study of the words by themselves, and this will be discussed in the section on Sentence Practise.

There are several ways of practising words, which, besides the intrinsic value they have, include any value that the endeavor to memorize the words would have too. Words may be used to train the eye in accuracy of observation of the sound formation, to train the mind in quickness of associated thought or idea perceptions, and to train both eye and mind in alertness of response. How words may be so used can best be shown by definite examples, and for that purpose I give herewith a list of words:

*sh*oot	*sh*arp	pea*ch*	page
*sh*ould	*sh*ow	me*sh*	ocean
*sh*ort	*sh*y	ma*sh*	na*t*ion
*sh*eep	*sh*out	di*sh*	plea*s*ure
*sh*ed	*sh*ape	ru*sh*	a*z*ure
*sh*ad	dou*ch*e	har*sh*	lei*s*ure
*sh*ip	pu*sh*	poa*ch*	lei*z*ure
*sh*ut	por*ch*	pou*ch*	en*j*oy

It will be noticed that the lips-projected movement for *sh, zh, ch,* or *j* enters into each of these words, as indicated by the italic letters, first as the initial element, then as the final element, and then as an element in the middle of the word. (Similar lists of words can easily be made for each of the movements, by taking one sound as a basis, and selecting words that give as great a variety of combinations as possible of this sound with the other sounds; and this should be done after the words given here have been practised.)

The first and most obvious way of using the list given above is in the study of the lips-projected movement. For this purpose have your assistant read the words to you, not too rapidly, while you concentrate your observation on this movement. For the present you need pay no regard to the words themselves; you should not even try for them. Simply make sure that you see the lips-projected movement in each word, and have any words repeated in which you fail to see it until the movement is clear. The list should be repeated several times in this way.

Secondly, the words may be used for the study of each movement in them. To do this, your assistant should read a word, and when you have shown by repetition that you have understood it, let him read the word to you again while you concentrate your attention on the movement for the first sound in the word; then again, while you concentrate on the second movement; and again for the third movement, and so on. For example, the first word in the list is "shoot." First make sure you know the word, and then as your assistant repeats it watch for the lips-projected movement for the *sh,* then again for the puckered-narrow movement for the long *oo,* and finally for the flat-tongue-to-gum movement for the *t.* You should not repeat the word each time; simply watch and make sure you see each sound. Your assistant needs to be cautioned always to say the whole word, to say it naturally without exaggeration, and not to spell it.

So far, the work is aimed to train the eye in accuracy of observation. To train the mind in quickness of associated thought perceptions, the words may be used in sentences. Your assistant should first give you a word, and then, when you have understood it, let him compose and give you a sentence containing the word. The object is to have the sentence revolve about that word with an idea suggested by it. For example, take the first word in the list, "shoot": an idea suggested by the word would be, "Did you shoot the mad dog?" Or, "I saw a star shoot across the sky." Or, "Did you ever shoot the chutes?" But such a sentence as, "Did you ever shoot?" would not be right, because no idea is suggested beyond the idea of shooting, and moreover because the sentence might easily be mistaken for, "Did you ever chew?" In the work with your assistant it is advisable that several sentences be composed for each word, but for practise and

example I will give one sentence each for the words in the above list:

should—Tell me what I should do.
short—My time was very short.
sheep—"Little Bo-peep lost her sheep."
shed—I wish the cat would not shed her hairs on the chairs.
shad—We had baked shad for dinner.
ship—What hour does the ship sail?
shut—Will you please shut the door?
sharp—The knife is not sharp enough.
show—Will you show me the book?
shy—She is a very shy little girl.
shout—Don't shout so loud.
shape—What is the shape of the house?
douche—I used a douche for my cold.
push—I will push you in the wheel chair.
porch—We sat out on the porch last evening.
peach—The peach is not ripe enough to eat.
mesh—The veil has a very fine mesh.
mash—Will you mash the potatoes for me?
dish— I put the dish on the table.
rush—I wish you were not always in a rush
harsh—The man has a very harsh voice.
poach—Would you like to have me poach the egg?
pouch—The postman's mail pouch is full of letters.
page—Will you find the page for me in the book?
ocean—"My bonnie lies over the ocean."
nation—The nation celebrates its birthday on the Fourth of July.
pleasure—It will be a pleasure for me to have you call.
azure—The sky is a beautiful azure.
seizure—The custom house made a large seizure of smuggled goods.
leisure—I have very little leisure for reading.
enjoy—Don't you enjoy a good game of cards?

To use the list of words to develop quickness of response by eye and mind, it is necessary that your assistant should know the words practically by heart. He should then say the words, while you repeat them. Immediately when you have repeated a word he should give you the next word. You, too, must try to make your response as quickly as possible, the whole effort being to "hit up the speed" to the maximum. The words may be given first in order, and then skipping around, over and over, until you can maintain your quickness of response from word to word through the list.

VII

SENTENCE PRACTISE

The chief value of sentence practise is for mind training; but any form of practise must also have value in training the eyes. Sentences, too, can be used in such a way as chiefly to teach the eye sound and word formations. First, however, they should be used in the more obvious way of training the mind to grasp the thought. For this purpose, as soon as the student is sufficiently advanced, sentences should be used with which he is not in any way familiar either by previous practise or even reading. To obtain such sentences I advise the use of a good text book on lip-reading; but in default of such a book your friend, or whoever assists you in your practise, should compose fifteen to twenty sentences, writing them down, and have them ready for your lesson.

As these sentences are read to you your effort should be to understand them, not analytically, but synthetically; not word by word, but the sentence as a whole. The first part of a sentence will usually be found the hardest; if, failing to understand that part, your mind stops and tries to puzzle it out, you will lose not only the first but also the last. On the other hand, if you strive to understand the sentence as a whole, and do not let your mind stop, no matter how much may be lost, frequently the last part of the sentence may suggest the first part, and thus complete understanding is attained.

Sentences may also be used to train the mind to work along the line of natural thought-associations. As all lip-readers know, the ease of understanding is increased greatly if we have any idea of the subject of conversation. Much of conversation is a direct progression from one associated thought to another, and hence any training that helps the mind to quickness in anticipation of the idea has great value. Illustrations of the method of using sentences in this way may be drawn from the sentences used in the preceding paper on word practise. I will give first the original sentence, and then several sentences associated with it in idea or thought.

Tell me what I should do. What shall I ever do about it? I'm sure I don't know; don't ask me.

My time was very short. How much time did you have? Only about five minutes. That wasn't long enough.

What hour does the ship sail? At 10 o'clock tomorrow morning. I'll be at the pier to say good-bye. I hope you'll have a pleasant voyage.

Will you please shut the door? I feel a draught from the hall. Is there a window open anywhere?

We sat on the porch last evening. It was rather cool, but it was a glorious night. There was no moon, but I never saw the stars shine more brightly.

I wish you were not always in a rush. I never have time to talk with you. You are always in such a hurry.

The illustrations given above are intended to be suggestive, not complete. Much further work along this line can easily be given you by a clever assistant.

(Concluded on page 125)

THE WRIGHT AUTO-INSPECTION LARYNGOSCOPE

MR. JOHN D. WRIGHT, M. A., editor of the special editorial department on the deaf in "The Laryngoscope" (St. Louis), describes in the current number of that periodical the

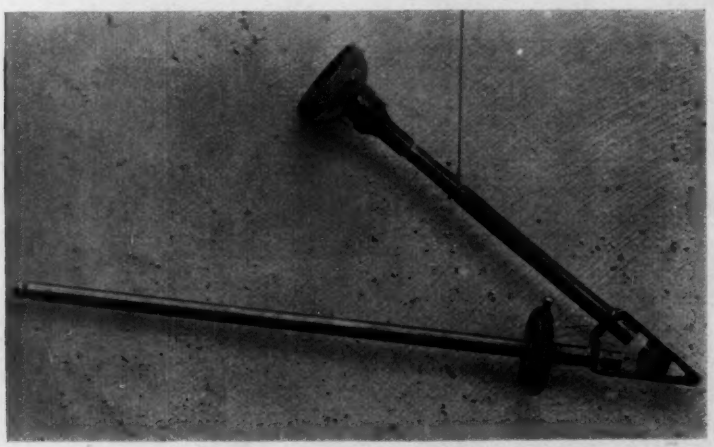
Courtesy of "The Laryngoscope," St. Louis

Wright Auto-inspection Laryngoscope, invented by himself. Mr. Wright gives the following account of the device:

The editor has devised, for use in his voice-work with his pupils, a modification of Dr. Harold Hays' pharyngoscope, by which a person may see with wonderful clearness the operation of his own vocal apparatus while producing sound. The accompanying cuts show the instrument in use by a pupil, and also the telescopic portion, which is the departure from Dr. Hays' instrument. This new part is made for use in the same sheath and interchangeably with the Hays telescope. Its construction involved the solution of some very difficult optical problems, and great praise is due to Mr. R. Wappler, of the Wappler Electric Manufacturing Co., for the wonderfully clear definition and illumination of the perfectly achromatic image that he has obtained. The manufacturer has called the instrument "Professor Wright's Auto-inspection Laryngoscope."

It is too early to know what practical results may be obtained by means of this new instrument in aiding the totally deaf to remedy their vocal defects. There are probably other fields than that of the editor's in which such an instrument will prove valuable, now that it exists. The physician, the singing teacher, singers and actors may find it of value to be able easily to study their own vocal apparatus in action. In the Hays instrument the same objective can be used for examination of the larynx and the nasopharynx, but in this instrument, owing to the angles involved, a different lense is required for nasal work. The little lenses can be interchanged in a moment, so that the same instrument can be used for nasal and laryngeal work.

Only a working model has as yet been made and this is shown in the cut. Its greatest length is seven and three-quarters inches. Perhaps the best posture in which to use the instrument is the sitting posture, bending forward and downward toward the knees, as gravity draws the epiglottis forward and clears the field of view.



Courtesy of "The Laryngoscope," St. Louis

AN "ENGLISH VOLTA BUREAU" ESTABLISHED

IN THE REVIEW for September, 1910 (pp. 383, 384), Mr. A. J. Story, Chairman of the National Association of Teachers of the Deaf, wrote of a movement to establish in England "central offices, with a permanent official in charge thereof, to be the center for the dissemination of information on all matters affecting the deaf; to be the home of the Arnold Library, the office of the Association's organ ('The Teacher of the Deaf'), and the place from which all effort should be put forth to forward the growing cause of the education of the deaf."

The provisional establishment of this Bureau is now announced in the current number of "The Teacher of the Deaf," as follows:

"The readers of this journal will be conversant with the proposal made by the editors for the establishment of a National Bureau to encourage the educational and general welfare of the deaf of this country; and they will be aware of the fact that the profession, as well as many friends outside the ranks of teachers, are unanimous in the conviction that such an institution is absolutely essential to the present and future advancement of the nation's work for the deaf. It is a significant fact, and perhaps characteristic of the general public misconception of the deaf, that of all the various types of children the deaf have so far never enjoyed the advantages that a Bureau, such as that proposed, offers to their educational and general well-being. Dr. Alexander Graham Bell, the inventor of the telephone, saw, years ago, the importance of such an adjunct to the educational care of the deaf of America, and he generously devoted the prize money he received for his invention[1] to the foundation of the Volta Bureau for the Increase and Diffusion of Knowledge Relating to the Deaf, the work of which has done much to elevate the deaf in the estimation of the people of that country, and necessarily therefore to improve their education and general circumstances.

"Happily for our own country, the establishment of a National Bureau is now assured. The chairman of the Association was able to announce at the recent annual meeting that a friend, deeply interested in the welfare of the deaf, has undertaken to start this much-needed agency for the betterment of their education and general conditions.

This generous friend will kindly finance the undertaking for two or three years, during which period it is expected that the new venture will have demonstrated its usefulness and have rooted itself firmly as an essential to the work, and in this case the permanency of the Bureau will doubtless be ensured in some way.

"The announcement of this important movement was received with intense gratification by the large number of members present at the annual meeting, and we have no doubt that it will gladden the heart of every one who takes any interest in the future of the national work for the deaf. A great work undoubtedly lies before this Bureau. Of late years the education of the deaf and the various questions connected with their welfare, have come to the front, and now command much attention from official, philanthropic, educational, and scientific sources. The Bureau will focus all the various efforts put forth and so secure the fullest benefits for the deaf from them. It will doubtless become a sort of 'clearing house' of information on the deaf, and thereby materially assist every agency seeking their benefit. It will become the active center extending in various ways the educational, industrial, and social elevation of the deaf.

"The thanks of every well-wisher of the cause of the deaf are due to the generous friend who is starting this extremely important movement. We are at the beginning of great things; and we hope the National Bureau to be established in London will be, as Mr. F. W. Booth, Superintendent of the Volta Bureau, of Washington, D. C., has suggested, the second link of a chain that shall encircle all the countries of the earth that seek to do the best for the deaf."

Commenting on the establishment of this Bureau, "The Teacher of the Deaf" says editorially:

"On no matter that has arisen in our work within our memory has there been such a universal agreement, within and without the profession, as on the desirability and necessity of this Bureau. The inauguration of this provision will mark a new era in the annals of the deaf of this country, and the profession will thereby be raised to its rightful status among the learned and scientific bodies. The Bureau will complete the educational system of the deaf of this country. It will become the keystone of the arch, co-ordinating, helping, and cementing together all the existing agencies for the benefit of the deaf child, and rendering the whole structure of his education and general well-being sounder, truer and more profitable to him. The true and far-sighted generosity of the friend who makes these anticipations possible will be commended as unanimously as the need for the Bureau has been emphasized, and not only in this country, but in America, where the experience of the Volta Bureau proves the wisdom of this generous action, and in the various countries of the continent, wherein those who know the needs of their work long for such a provision as we, happily, are on the eve of realizing."

[1] The reference is to the invention of the graphophone.—ED.

No July and August Numbers

Hereafter THE VOLTA REVIEW, in common with all or nearly all other publications of its class, will omit its July and August numbers.

THE INDUSTRIAL DEPARTMENT

Conducted by WARREN ROBINSON, M. A., School for the Deaf, Delavan, Wis.
Chairman Industrial Section of the Convention of American Instructors of the Deaf

THE ECONOMIC EFFICIENCY OF THE DEAF—SUGGESTIONS TO INDUSTRIAL TEACHERS, STORIES OF SUCCESS, AND HINTS ON HOW TO SUCCEED

Carpentry in the Wisconsin School for the Deaf

Carpentry is an indispensable trade. Were the schools for the deaf canvassed as to what was the first practical instruction given, woodwork in one form or another would head the list. It does in the Wisconsin school, where over half a century ago woodwork in the form of cabinet-making was started, eight years after the founding of the school in 1852. But now carpentry is the better name for this instruction, which, while it does not ignore the making of furniture, nevertheless covers more ground. Carpentry is exceeded by no other trade in its breadth and scope. The mastery of carpentry includes the doing of useful things which are so numerous that their name is almost legion. The carpenter has been called "the jack-of-all-trades."

When it was decided to erect a new industrial and manual-training building to take the place of the old shop, the "Delavan Enterprise," one of the local papers, published this bit of comprehensive history:

"The erection of the new industrial building will remove one of the oldest landmarks at the State school grounds. The old shop building was the first of its kind, and was opened in 1860 as a cabinet-shop; was subsequently enlarged and shoe-making introduced some years later. During the administration of Supt. William H. De Motte (1875-1880), basket-making was introduced but soon abandoned. When the old school was burned, in 1879, the shop served as a school-house and temporary office for the superintendent. But the time for industrial changes has come and it must go, and its successor will mark the beginning of a new era of industrial progress."

The following description of the new building by the editor of the "American Industrial Journal" is taken from that publication for December, 1908:

"The dimensions of the building are, long wing, 112 x 32 feet, and short wing, 60 x 32 feet. The foundations are of concrete, the walls of cream-colored brick, and the roof of slate. Only the long wing has a basement, which is divided up into a bowling alley and a store-room for lumber, paint, glass, etc. The first floor of the long wing is occupied by the carpenter-shop, a furniture-room, an office for the instructor, and a temporary school-room in the south end. On the second floor is another school-room just over the first, and the rest of the wing is taken up by the manual-training department, consisting of one large room, a drafting-room and instructor's office.

"On the ground floor of the short wing, which is of cement, are the forge and blacksmith-shop, and directly over it is the shoe-shop. The inside of the building is roomy, supplied with closets, well flooded with light, and easily ventilated. It is heated by steam and lighted by electricity."

The shop is well equipped with a dozen work-benches, including one for the instructor. On the walls within handy reach are twenty-two tool boxes, made by the pupils themselves. Each box contains the following tools: Hammer, rip-saw, coarse hand-saw, panel-saw, joiner-plane, jack-plane, smoother-plane, block-plane, firmer-chisel, augur bits, bit-brace, oil-stone, oil-can, knife, square, try-square, thumb-gauge, drawing-knife, nail-set, screw-driver, screw-driver bit, rule, mallet, divider.

Repairing of all kinds takes up a very large part of the pupils' time, not to mention painting, polishing, etc. And along with the names of the various woods and other materials with which they deal, they are given problems in measurement and taught to figure out the cost of material and the time consumed.

As a trade for the deaf, there appears to be a difference of opinion about carpentry. We know of but three articles discussing the trade in general, and in particular as a calling for the deaf. All of them were written for the "Industrial Journal," and while two were reassuring, the third was not. The writer of the last-mentioned is himself an instructor in a western school. He states that of the seventy-five who took training at his institution, only a few followed the trade after leaving school. He is inclined to think that in the first place it is a difficult trade—a fact which too many deaf young men are slow to realize. There are those, moreover, who are hardly willing to work hard enough to master its many details. The greatest obstacle to the

deaf carpenters securing work, in the mind of this writer, is the prejudice against them shared by employers, because they cannot very well communicate with the deaf except at a loss of time. Added to this is the fear of accidents. The writer asserts that to counterbalance the handicap of deafness the deaf carpenter must aim to become even a better carpenter than the hearing man.

While all this is fully appreciated, and making allowance for local conditions and other minimizing circumstances, we cannot but believe that carpentry is a splendid trade for the deaf. It is so little brought to the front in the industrial world of the deaf that most of us are unaware of the large number that are engaged in it, not to mention those occupations which are next in kin if not actually a part of it. Its earning power, not even touched on here, is high. Deaf carpenters are now making from $2.75 to $4 a day right along. Nor do season or weather conditions shorten the working period as much as formerly, on account of the modern devices for protecting the workman.

In this age of sanitation, when every one is taught that the preservation of health is a factor of the highest importance, young men contemplating a trade might gain some useful information by comparing the age record of carpenters with that of those in other trades.

THE QUESTION BOX

To what extent should machinery be employed in the industrial instruction of the deaf?

THE HIMROD ENGRAVING CO.

Among the many commendable features of the Industrial Exhibit at Colorado Springs last summer was its effect in bringing to light the work of a number of deaf men and women who were almost unknown, even to the deaf world itself.

Among these is a deaf man in Pennsylvania who has for years been building up a business that calls for extensive knowledge of social customs and business forms, good taste, and expert skill. The reference is to Mr. William De Witt Himrod, head of the Himrod Engraving Company, at Erie, Pa. The business of the firm is copper- and steel-plate engraving and printing high-grade stationery.

Mr. Himrod's modesty prevents the acquisition of much information concerning himself and the means by which he has become the owner of this concern. He was born and attended school in Erie. Later he spent six years at Kendall Green, Washington, D. C. He was born in 1865, married in 1891, and started his present business in 1892. His wife was Miss Edwina Olivet Youmans, of South Carolina, and they have three children. Mr. Himrod employs a number of skilled workmen, but how many of them are deaf is not known. The company enjoys an extensive patronage.

Mr. Himrod's exhibit at Colorado Springs was a comprehensive one.

THE UTILITY OF EDUCATION

There has lately been some discussion in the school press as to whether brains, or, as another puts it, higher education, pays. Without going into hair-splitting distinctions, citing extreme cases, or trying to analyze the meaning of either term above used, it may be said that a general as well as a high development of intelligence pays all along the line.

By a development of intelligence we do not understand mere intellectual attainment nor book knowledge alone, but a training of the whole man or woman in the use of his or her powers, whether physical, intellectual, or moral.

In a word, there cannot be the fullest development when every power with which we are endowed is not brought into play. A careful study of the evolution of the race seems to reveal the fact that it was one of the provisions of nature that the physical and mental machinery should co-operate with each other from the earliest stages of life in bringing out the best and highest usefulness of man. One reason why the traditional curriculum of the schools is out of gear is because it is too one-sided.

The best education, the safest and surest, is that which not only requires the pupil to think but to execute a large part of his thinking; or, in other words, to give his thought application. It makes no difference whether one is going to be a teacher, lawyer, minister, or writer; in his earlier years he should be brought into contact with things which will require him to use his physical as well as his mental powers. Many a man—or woman, for that matter—has reason to rue the day that he did not learn how to turn his hand to account when he was young, not only at a special line or calling, but in a general way.

Hence the responsibility that rests on the schools in the training of the present generation is probably greater than it has ever been. Head, hand, and heart must be so trained in unison as to be ready to guard against changes in industrial conditions that often come in these days so swiftly and unexpectedly. With special emphasis does this apply to the deaf, who will be more and more handicapped as the sphere of practical education widens in the schools for the hearing unless the most vigorous measures are taken to safeguard them.

SUGGESTIONS TO TEACHERS

CLASS-ROOM HELPS "WITH THE CRAYON-DUST ON THEM"—WRITTEN BY TEACHERS FOR TEACHERS

Suggestions Regarding Daily Program

Without attempting to fix definitely the time for the several subjects, we can with reasonable assurance lay down certain principles.

1. The most difficult subject must come at the time of maximum brain efficiency. Arithmetic should not come late in the morning or afternoon.

2. The strongest possible contrasts should be made in the arrangement of the program.

3. An exercise which requires a steady hand, like writing or drawing, should not follow violent physical exercises.

"The art of class-teaching consists chiefly in knowing how long and in what way one can retain the attention of students. The best masters are those who never fatigue too much any one region of the pupils' brains, so that their attention, being directed now here, now there, obtains some rest, and is better able to grapple with the main subject of the lesson."—Elmira School Bulletin.

A Geography Contest

Two leaders are appointed, who "choose up," thus dividing the school into two parts. One side then choose a geographical name, such as a city, river, animal, plant, etc. The other side try to guess it by asking questions that may be answered by yes or no. We limit the questions to twenty-five.

For instance, if St. Paul is chosen, the other side begin their questions, such as: Is it a river? (No.) Is it an animal? (No.) Is it a city? (Yes.) Is it in the United States? (Yes.) Etc., etc., until it is guessed.

This little device may be used in the same way for history, agriculture, etc. It is very interesting and makes the pupils think.—School Education.

How to Read the Heart of a Boy

1. Study his parentage and home influence.

2. Observe closely his likes and dislikes, aptitudes, temper, companions, reading.

3. Converse with him often in a friendly way.

4. Ask as to his purposes and ambitions.

5. Lend him books.

6. Interest yourself in his sports.

7. Speak to him of lessons in the lives of good men.

8. Tell him of your struggles in boyhood or girlhood with adverse circumstances.

9. In brief, be his friend; when he leaves school and neighborhood, keep informed as to his whereabouts by correspondence.—Western School Journal.

Games

(1) Ask each pupil to bring to school three jokes or short anecdotes of children, such as may be found in the "Youth's Companion." These are placed in a box, then five children are given three minutes in which to look over the jokes, when they must tell them in the best possible manner. Votes may be taken on the best joke, and the best presentation of the same.

(2) Ask for pictures of heads of celebrated men and women. Pass one quickly about the class and have the children write on paper a word or two telling something about the picture—collar, three buttons, fluffy hair, looks cross, round shoulders, etc. Ask for the words rapidly.

(3) Tell each child to select a short memory gem and be prepared to give it. The children take the words and try to make other sentences. The child who makes the greatest number with the most speed wins.—American Journal of Education.

For Spelling and Defining

castle	mill	theater
palace	hotel	factory
tavern	ville	warehouse
prison	convent	cathedral
dungeon	mosque	state-house
cottage	cabin	school-house
depot	tenement	hut
inn	church	dugout
barn	hovel	bungalow
stable	tent	shed
shop	barrack	monastery

—American Journal of Education.

A Simple Agricultural Test

After studying the following list of farm implements, go to the implement store and become familiar with those now strange to you. Then have each of your pupils check the names of implements not familiar to him. See how soon each may learn from actual ob-

servation, or from pictures and descriptions, the appearance and use of the unfamiliar implements. Add others to this list to suit the needs of your locality:

wind-mills	corn-shredders
ensilage-cutters	corn-planter
hay-balers	harvester
hay-loaders	mower
litter-carriers	separator
gasoline engines	seed-corn sorter
cultivator	hay-stacker
drags	ear-corn cutter
harrow	brooder
plows	incubator
spreaders	threshers
potato-planters	hay-rack
seeders	dehorner
automobiles	fanning-mills
corn-harvester	potato-diggers

Similarly, make a list of tools used on the farm and have pupils become familiar with them.—The Nebraska Teacher.

The Forty-five Combinations

The forty-five combinations as used in the teaching of primary arithmetic which every school child is expected to memorize and master are as follows:

1	1	1	1	1	1	1	1	1
1	2	3	4	5	6	7	8	9
—	—	—	—	—	—	—	—	—
2	3	4	5	6	7	8	9	10
2	2	2	2	2	2	2	2	3
2	3	4	5	6	7	8	9	3
—	—	—	—	—	—	—	—	—
4	5	6	7	8	9	10	11	6
3	3	3	3	3	3	4	4	4
4	5	6	7	8	9	4	5	6
—	—	—	—	—	—	—	—	—
7	8	9	10	11	12	8	9	10
4	4	4	5	5	5	5	5	6
7	8	9	5	6	7	8	9	6
—	—	—	—	—	—	—	—	—
11	12	13	10	11	12	13	14	12
6	6	6	7	7	7	8	8	9
7	8	9	7	8	9	8	9	9
—	—	—	—	—	—	—	—	—
13	14	15	14	15	16	16	17	18

A Language Device

My primary and first-grade pupils are being taught language by playing a game called "May I."

Three children stand in front of the class. One holds a pen behind him, one a pencil, and one a ball. The class close their eyes while the three children exchange objects, after which all open their eyes and one of the class asks: "May I have the ball, James?" He answers, "I have no ball"; or, if he has it, he answers, "Yes, you may have the ball," and these two exchange places, continuing as before with the game.

HOW TO PRACTISE LIP-READING

(*Concluded from page 119*)

The sentences should also be used to train the mind to quickness of response. The original sentences, after all the preceding practise, will be pretty well in mind. Let them be read to you now with as high a degree of speed as your ability to understand will allow. They should be read not in order, but skipping around. You should endeavor to repeat each sentence as quickly as possible. It is permissible, in order to help create this habit of quick response, to get any help from memory that you can; that is, if you see a few of the words of the sentence and those few suggest the whole sentence, let your response be immediate, just as though you had seen everything.

Finally, sentences may be used, even better than words by themselves, to teach the eye correct word formations. Use the same sentences as before, which by now you should know almost by heart. As the sentence is read to you, do not repeat it, but concentrate all your thought and attention on the first word. Try to see the word as a whole, and not the individual sounds and movements. Then have the same sentence repeated, and concentrate similarly on the second word; then yet again, while you concentrate on the third word, and so on.

As an illustration, take the sentence, "My time was very short." The first time the sentence is read, you concentrate on the word "my;" then as it is read again, you concentrate on "time;" the third time on "was," etc. The *whole* sentence should always be read, and always rapidly and naturally. The word you are looking for should not be emphasized, for the value of the practise lies in learning word formations when occurring in their natural associations with other words in a sentence. For example, "was" by itself is spoken with an open or wide formation for the vowel, but in the sentence the vowel is practically eliminated, as "My time w's very short."

More work has been suggested in papers VI and VII than any one perhaps would care to do in one practise period. It is not intended that it should all be done at one time, but what is not done one time should be done the next. Moreover the practise should be varied from day to day by interspersing the different kinds of practise advised in the previous papers.

THE DEAF CHILD'S HOME TRAINING

Conducted by MRS. J. SCOTT ANDERSON, Swarthmore Home for Deaf Children

A DEPARTMENT TO AID THE MOTHER IN THE REARING OF HER DEAF CHILD—INQUIRIES WILL BE ANSWERED BY THE EDITOR

Outline of work for young children of 3 years (periods to be lengthened as the child grows older):[1]

9.00	o'clock to	9.10	—Color work.
9.10	" "	9.20	—Games.
9.20	" "	9.35	—Sewing cards.
9.35	" "	9.45	—Lip-reading.
9.45	" "	9.55	—Paper folding.
9.55	" "	10.05	—Marching, dumb bells and wands.
10.05	" "	10.15	—Pictures, Old Maid, number, kindergarten gifts and occupations.
10.15	" "	10.25	—Gymnastics.
10.25	" "	10.35	—"Writing" and special sense training.
10.35	" "	10.45	—Language and reading.

Frequent reviews are always advantageous, providing they are not dull reiterations of what has gone before. This truth holds good with that which interests adults, as well as with that which appeals, or ought to be made to appeal, to children. Consequently it is advisable to review just here the reasons given for teaching the deaf child when he is very little.

Deaf children are usually spoiled because they are not understood; their families and friends are always inclined to believe that they are not responsible, and so give up to them, or fail to teach them obedience and common politeness. They often so upset the child's attitude toward the world as to make endless trouble unavoidable when he really must learn. This can be avoided if the mother will use good judgment after understanding that there should be method in all his training. These papers have been written to interest her in the real education of the deaf child.

The entire outline of home work, as given here, is a *general* guide, and is not to be considered as arbitrary. It is, however, as accurate a division of time as can be made for the generic child, being the schedule used by the writer for many young deaf children, some of whom were such little mites that they required a nap at ten thirty instead of kindergarten or play. Under such circumstances it would have been quite wrong for their teacher to carry out the plans she had made for the rest of the morning. Even so, the plan was not at fault, but showed its superiority over the more advanced schedules by being flexible, for the nap spoiled neither child nor "work."

A teacher of children of six or seven who has never been with very little children who hear, and who feels that the education of the deaf child ought to be put off until he is able to enter a formal school-room as a regular, methodical pupil, has much pleasure in store for her if she will study little children, as they romp and play at their ease in the home. She will soon discover that it is in the home that the little deaf child should be taught, *if the parents do not send him to a home school.* Each of the children, mentioned above, throve well on the evenly balanced play and rest program, which, as careful consideration will show, ensures a continual change of occupation (thus providing rest) while students of the child and of pedagogy will note that muscular activity is encouraged throughout the so-called school session, but that there is no overexertion. The attention of the reader has repeatedly been called to the necessity for using large materials, for making large movement, and for dealing with large objects.

[1] This daily schedule was first printed in THE VOLTA REVIEW for November, 1910. The first seven exercises have been treated in previous numbers. The program may, of course, be adapted to fit individual needs.

Each step has been taken up separately and worked out in its entirety, thus covering considerable ground, often in a very small space. The topics have been well considered and have been condensed as much as possible, in order to make clear to the mother the beginning and the end of her own work. It will be noted that while a child of three may take the first work under a topic he would not for two, or perhaps three, years be able to follow out the final steps.

Another word just here. I have followed the development of little deaf children and have compared it to that of my own hearing children, as well as those of my neighbors, and can state with the authority of theory, observation, and practise, that all little children are far happier when kept sanely busy at play, for at least a portion of the day, than when left entirely to their own devices. This aspect of home training leaves out of consideration all the reasons for teaching young deaf children—the necessity of calling attention to speech-reading, and of forming habits of obedience, self control, politeness, cleanliness, and orderliness.

There is no danger whatsoever that the mother, who is naturally alert to all that affects her child, will over-do any of this preparatory work. Little sleepy eyes, wrinkled brows, and loss of interest are to the mother-heart signals that the little child needs rest. Loving, watchful mother-eyes will detect any weariness, for aside from affection for her child, the mother suffers more than any other person when he is tired and cross. She can detect symptoms of these before anyone else. For just this reason the mother is the proper person to teach the little deaf child, if she has studied the subject of training the deaf. On the other hand, she is the last one to have charge of even the tiniest deaf baby, if she knows nothing of his mental makeup, his possibilities and his requirements, for she will absolutely misunderstand him, allowing ill-nature and selfishness to secure a strong foothold where loving kindness and generosity would naturally develop if encouraged.

Daily Program Continued—Gymnastics

These gymnastics should be along the line of those explained under the heading "Graduated Body Drill," but should always be the large movements which bring into play the large muscles. The aim of this work is to teach children to exercise in unison, and, of course, must be adapted to the age of the child. Keep the window wide open, but the doors shut—this will usually ensure plenty of air without draughts.

Special Sense-Training

In the future your boy, through the sense of touch and of sight—with the fingertips of one hand on his teacher's throat and those of the other on his own—will be able to distinguish, not only between correct and incorrect vibrations when "a" is said, but also between high and low tones of the voice. He will feel these vibrations and tones in the throat, first in that of his teacher and then in his own. He will be conscious that there is vibration in the lips when the sound of "m" is given, and also that there are vibrations in the nose. In other words, by feeling just where these vibrations are located and seeing how the various muscles respond to certain efforts, he will learn to talk. Naturally, he must acquire a quick perception and a keen touch, for eye and ear cannot work together in his case—his agents are sight and touch. Remember, then, that he will learn to talk by *feeling* vibrations, and by *seeing* the correct position of the vocal organs. You can help him now by training him for the future fine work which will be required of him at school. This you must do by developing his power of observation, and his sense of touch.

The teaching of "writing" will be discussed in the next number of THE REVIEW.

CONTEMPORARY FOREIGN THOUGHT

Conducted by ANDERS HANSEN, Direktor, DEN KGL. DOVSTUMMESKOLE, Nyborg, Denmark

OPINIONS OF LEADING SPECIALISTS ABROAD, AND RESULTS OF RECENT INVESTIGATION IN THE OLD WORLD

PURE ORAL WORSHIP

AS previously mentioned in THE REVIEW, the Rev. Mr. Malmer, pastor to the deaf of the district of south Sweden, in his recent report expressed surprise that he had found only two out of one hundred German pastors, directors, or teachers of the deaf conducting religious worship for their non-hearing congregations by speech alone. This fact may be called astounding when it is remembered that some of these very same religious leaders are the champions of pure oralism in the school.

The Rev. J. Jòrgensen, pastor to the congregation of the deaf at Copenhagen, has commented, in the "Nordisk Tidskrift for Dòfstumskolan," on this statement of Pastor Malmer's. He thinks that his Swedish colleague has also been surprised at seeing Mr. Jòrgensen himself making use of a combination of oral speech and signs when addressing his church audience. He believes, also, that Pastor Malmer will find further cause for wonderment when he hears that not one amongst the hundred English pastors and missionaries to the deaf use oral speech alone at their church services.

Conditions are not altogether the same in Denmark and Sweden. A combined method has not hitherto developed in Denmark, although many of the orally taught deaf understand the significance and use of signing as well as the manual alphabet. In the "combined" intercourse of the Danish deaf, the "combination" is always speech and signs or spelling and signs, but never speech and spelling. Pastor Jòrgensen follows the practise of the deaf themselves in employing speech interspersed with significant signs or signs supplemented with spelling, but he never combines speech, spelling, and signs when he can help it, although he is compelled so to do at rare intervals.

He finds this triple combination quite difficult. During the first five or six years of his ministry he never dared to attempt it, and for that reason he held two separate services, even when the attendance at each of them consisted of only a few persons. Even now, after further experience (Pastor Jòrgensen was a manual teacher of the deaf for some years before entering the church) he is always dissatisfied at the conclusion of such a "combined" sermon, for the reason that he finds one of the "combined" elements to suffer in the combination; speech being indistinct or else spelling unsatisfactory.

It is an advantage in mixed gatherings, Pastor Jòrgensen thinks, to place the lip-readers to the left side, where they are less distracted by the simultaneous manual discourse. When using oral speech, Pastor Jòrgensen always speaks with voice, as he fears that the articulation movements lack distinctiveness otherwise.

Pastor Jòrgensen puts the question, "Why do I not employ pure oral services?" and answers it thus:

"Let me first say that I believe we in Denmark have overcome the nervousness over signs which formerly prevailed. I do not believe it greatly detrimental to the speech and lip-reading of the adult deaf to use signs in their intercourse with other deaf persons. Add to this that as a matter of fact the adult deaf do so use them. In my opinion it would be inadvisable artificially to attempt to prevent this tendency among some of the poorest lip-readers and speakers.

"I further believe that all agree that pure oral addresses are not suitable to very large assemblies. The difficulty of lip-reading increases proportionately with the increase of distance, and when once the thread of thought has been broken it becomes difficult to pick it up again. If oral speech under such conditions is maintained, the discourse is interspersed with mimic gesture to such a degree as really to become signing, for the boundary between pantomime and signing is indistinct. The sign-language is more natural than is presumed by those who are unfamiliar with it.

"When the address is a sermon the difficulty of understanding increases. Let the discourse be as plain and simple as can be, it will always be somewhat complicated to the mind of the deaf, for the reason that abstractions are unavoidable, while the deaf are realists. Besides, a sermon is not only to be understood; it should also be taken to heart. If anything is to be wrought through a sermon, a double action must take place in the mind: first, the sermon must be understood; and, second, it must be applied to oneself.

"When, for instance, I deliver an address on Stanley's travels in Africa, it suffices if the hearer understands; no self-trial is sought

for. But suppose that the clever lip-reader understands my sermon—I do not deny it—even when speech is not supplemented with signing. Here I feel convinced that the exercise of speech-reading exacts such stress of concentration as to absorb all the energies and leave nothing to the higher activity, the spiritual acquisition of the content. The comprehension of the sermon must be made easy, and I do not know of any deaf persons to whom it is not a relief to have the main thoughts illustrated through signs; I mean, it is a relief to the deaf who are familiar with signs.

"These are the reasons why I am not inclined to the use of pure oral sermons. I do not recognize their usefulness. Nevertheless, I do recognize the great advantages of oralism, and if anybody were to call me an adversary of oralism the accusation would be most unjust. But speech-teaching must not be turned into a false deity on whose altar things of higher value than teaching methods are to be sacrificed."

Through the courtesy of the editors of the "Nordisk Tidskrift," a proof of Pastor Jòrgensen's article was sent to Pastor Malmer so that he could have his reply printed in the same issue. He answers Pastor Jòrgensen in part as follows:

"Five years have elapsed since my friend, Pastor Jòrgensen, and I first began to discuss the question of signs at religious services for the deaf. It looks as if he, too, has gained more confidence in speech and places less reliance in signs during that period. We have often met and exchanged views upon this topic within these years, and have thus been able to follow the development of each other. Indeed, not many weeks have passed since we contemplated together the problem of pure oral sermons.

"Pastor Jòrgensen's viewpoint is logical enough. He who formerly was a manual teacher finds it serviceable to supply the lip-reader with some signs to make it easier to understand the sermon when he knows the lip-reader is familiar with the use of signs!

"In my intercourse with other persons I always endeavor to employ that means of communication which my interlocutors know best. In accordance with this rule I also conduct pure oral services, for my district contains about twenty semi-deaf and semi-mutes, together with some congenitally deaf who are quite unfamiliar with the use of signs and spelling, relying exclusively upon oral speech in their daily intercourse with others. Scattered in some of the towns there also live some thirty persons, mostly semi-deaf and semi-mutes, who have acquired some proficiency in the comprehension of signs through observation, but who readily and preferably understand a sermon delivered without the accompaniment of signs. Besides this, I have some fifteen former pupils of the 'A section' who have always been accustomed to rely on lip-reading and who know my ways of thinking. To all these, signs are of no real necessity.

"For the most part, these four groups would never have been in touch with the consequences of signing if a proper grading of the deaf children existed in Sweden, with separate schools for the different grades. Much of what I can orally bring home to those deaf I can only partly and less correctly convey to them by the incomplete language of signs. The assertion that the spoken word is inapplicable in a larger assembly of the deaf is of no avail in this connection, because generally not more than five to fifteen deaf persons attend the services conducted orally. I, too, use the voice; and, more than that, I speak with raised voice when addressing such a gathering.

"I have more than one reason for not mixing oral speech with the sign language. First, this practise is not followed by the deaf themselves; and, secondly, when I utter the spoken word there would arise a disharmony between that and the sign language. The two languages differ widely in their structure, so that it would be a shock to hearing relatives of the deaf, who very often attend the service, to hear their mother tongue deformed so as to follow the grammar of the sign language.

"My reasons for conducting separate oral service may be summed up under several headings:

"1. As long as champions of the pure oral method are found in the ranks of the most prominent teachers of the deaf there will always be a number of deaf persons, even of the congenitally deaf, who do not understand signing and who will not learn signs. These individuals, moreover, would decline to attend services where signs were used.

"2. As long as there are very outspoken semi-deaf and semi-mutes to whom oral speech is the natural means of communication, the signs they may have learned during school life having been forgotten in their association with the hearing, the spoken word alone will continue to them to be the preferable means of communication also at religious services.

"3. As long as deaf persons are found, whether congenital or not, who after graduation gain a greater and greater command of our language, owing to their environment and mental capacity, the sermons that did not go beyond and above the boundary within which the sign language is confined would cause great discontent.

"4. To me it is always painful, every time I have to confine myself solely to the use of signs, to reflect that many of the deaf of this country actually find satisfaction in this imperfect language. On this point, however, I beg not to be misunderstood, for at the same time I rejoice that there exists a medium through which happiness, comfort, and instruction can be conveyed to souls who without that would live in darkness."—A. H.

NEWS AND COMMENT

HAPPENINGS OF GENERAL AND TECHNICAL INTEREST—HOW THEY APPEAR TO THE LAY AND PROFESSIONAL PRESS—ITEMS FROM OUR READERS SOLICITED

New Life Members

The Association has been honored by the entrance into life membership of Mrs. Fred Hollister Fay, of Auburn, N. Y.; of Mrs. Phoebe Hearst, of Pleasanton, Cal., and of George J. Oden, First Lieutenant, Tenth Cavalry, U. S. A., Fort Ethan Allen, Vt.

New Principal of P. S. 47, New York

Miss Carrie Wallace Kearns has been appointed principal of Public School 47 (Day School for the Deaf), New York city, to succeed the late Miss Margaret A. Regan, who organized the school two years ago. Miss Kearns was transferred from the principalship of one of the elementary schools for the hearing, the order of transferal taking effect on April 3. It is understood that the Board of Education decided that it would be better to make sure of having a good executive head and a good organizer, rather than an expert teacher of the deaf, as principal of the school.

PROGRAM OF "DEPARTMENT XVI, N. E. A."

The program of the Department of Special Education ("Department XVI") of the National Education Association has been announced by Dr. Frank G. Bruner, President of the Department. The next annual meeting of the Association will be held in San Francisco, Cal., July 8 to 14.

It will be noted that the work for the deaf does not have as prominent a place as in former years. This is largely for the reason that at previous meetings it had received very large consideration. One entire session is given up to the question of the conservation of vision, a matter which is just now receiving large attention in medical circles.

Throughout, the program reflects the desire of those who have drawn it up to avoid controversial subjects. These, it is thought, have had their due share of attention, and on this occasion at least it has been deemed more advisable to direct the discussions of the various special problems of education along causative lines, and so toward the consequent preventive and curative measures which might suggest themselves.

The program is as follows:

I. The Conservation of Vision.
   1. What Can Be Done to Prevent Blindness in Children under School Age. Dr. Mark D. Stevenson, Akron.
   2. The Hygiene of Vision. Dr. F. Park Lewis, Chairman, Committee on Conservation of Vision, American Medical Association, Buffalo, New York.
   3. School Activities in Relation to Children's Eyes. J. H. Shawan, Superintendent of Schools, Columbus, Ohio.

   Discussion led by Edward M. Van Cleave, Superintendent of the Ohio State School for the Blind, Columbus, Ohio.

II. Exceptional Children.
   1. Causes of Backwardness and Mental Deficiency in Children and How to Prevent Them. H. H. Goddard, Director, Laboratory of Research, New Jersey Training School for Feebleminded Children, Vineland, New Jersey.
   2. What Constitutes a Subnormal Child and to What Extent He Can Be Trained. Vinnie C. Hicks, Special Psychologist, Public Schools, Oakland, Cal.
   3. The Physiology and Psychology of the Deaf Child. Charles D. Lowry, District Superintendent, Chicago, Ill.

   Discussion led by George L. Leslie, Director of Psychological Clinic, Los Angeles, Cal.

   Joint session, in which the Departments of Elementary Education and Kindergarten Education join.

III. The School Laggard.
   1. Comparative School Progress of Children of different Nationalities. Dr. Luther H. Gulick, Director, Department of Child Hygiene, Russell Sage Foundation, New York.
   2. Separate Schools with Separate Course of Study for the Separate Needs of Our Children. S. L. Heeter, Superintendent of Schools, St. Paul, Minn.
   3. Speaker and topic to be supplied.
   4. Can the School Laggard be Eliminated? C. W. A. Luckey, Head Professor, Department of Education, University of Nebraska, Lincoln, Neb.

   Discussion led by Lewis T. Terman, Leland Stanford University, California.

THE UNIVERSAL ALPHABETICS

Conducted by M. GARDINER

MONTHLY LESSONS IN MELVILLE BELL SPEECH SYMBOLS, THE MASTERY OF WHICH ENABLES THE STUDENT CORRECTLY TO PRONOUNCE ANY SOUND IN HUMAN SPEECH

ﻣﻦ ﺍﻟﺼﻮﺕ ﻭﺍﻟﺘﻨﻔﺲ ﻭﺍﻟﺘﺤﻜﻢ ﻓﻲ ﺍﻟﺤﻨﺠﺮﺓ ﻭﺍﻟﺸﻔﺘﻴﻦ ﻭﺍﻟﻠﺴﺎﻥ ﻭﺍﻟﺤﻨﻚ ﻭﺍﻟﺴﻘﻒ ﺍﻟﺮﺧﻮ ﻭﺍﻟﺤﻨﻚ ﺍﻟﻠﻴﻦ ﻭﺍﻟﺤﻨﻚ ﺍﻟﺼﻠﺐ ﻭﺍﻟﻠﻬﺎﺓ ﻭﺍﻟﺤﻠﻖ ﻭﺍﻟﺮﺋﺘﻴﻦ ﻭﺍﻟﻘﺼﺒﺔ ﺍﻟﻬﻮﺍﺋﻴﺔ ﻭﺍﻟﺸﻌﺐ ﺍﻟﻬﻮﺍﺋﻴﺔ

Esmeralda and Phoebus And so they sat for a while Esmeralda was
lost in admiration of Phoebus And he was no less in admiration
of her for while he was not handsome he had a fine figure
and a graceful manner of carrying himself and he was very
proud of his fine uniform and his handsome appearance and
he was very glad to have the opportunity of showing off
before a girl who was so beautiful as Esmeralda was and
who seemed so much impressed by his gallantry and by his
splendid appearance and by his fine manners

BASIS OF THE SYMBOLS

BASIS FOR CONSONANT SYMBOLS

BASIS FOR VOWEL SYMBOLS

N. B.—Those who desire to go more deeply into the subject of the Melville Bell Symbols are recommended to consult Dr. Alexander Graham Bell's lectures upon "The Mechanism of Speech," delivered before the American Association to Promote the Teaching of Speech to the Deaf. Published by Funk & Wagnalls Company, New York and London: Second edition, 1907. The Scientific use of the Symbols is explained in the chapter on "Methods of Studying the Mechanism of Speech," pp. 34-50. For "Method of Teaching the Symbols to the Deaf," see pp. 51-76. For a quick introduction to the system, see "English Visible Speech in Twelve Lessons" (Volta Bureau: 50 cents to members, 60 cents to others).

Special shuttles, containing nearly every Speech Symbol yet devised, have been cut for use on the Hammond typewriter. The Universal Alphabetics keyboard can be used interchangeably with the regular English characters on this machine. The price of this special shuttle of Universal Alphabetics, if bought directly from the Volta Bureau, is $2.50 each. Address F. W. Booth, Superintendent.